

INDEX OF AUTHORS' NAMES

ABSTRACTS A and B, 1928.

An asterisk denotes a previous abstract. Patents are marked (P.)



Anonymous.

- constituents of *Artemisia brevifolia*, Wallich, A., 335.
- separation of the platinum metals, A., 861.
- preservation of photographic materials, B., 107.
- technique of seed testing, B., 311.
- testing of lithopone, B., 376.
- stearic acid standards, B., 491.
- apparatus for determining the setting point of mineral oils, B., 592.

A.

- A. C. Spark Plug Co., and McKinley, C. W., fluid filters [for lubricants], (P.), B., 508.
- Aagaard, T., enzymic hydrolysis of melczitose and turanose, A., 1062.
- Aagaard, T. See also Boedtker, E.
- Abadie, J. B. J. M., manufacture of luminous electric discharge tubes, (P.), B., 490.
- Abbey Syndicate, Ltd., and Nanji, D. E., treatment of plant materials in the preparation of fibres; treatment of fibrous plant tissues, (P.), B., 809.
- Abbink, J. H., and Dorgelo, H. B., spectra of krypton and xenon in the extreme ultra-violet, A., 338.
- Abbott, A. E., Kon, G. A. R., and Satchell, R. D., three-carbon system. XIX. Homomesitones, A., 1218.
- Abbott, F. D., machine for testing rubber products used to absorb vibration, B., 721.
- Abbott, T. W., and Johnson, J. R., [preparation of] styrene, A., 747.
- Abbott, W. E., determination of stable and unstable organic matter in sewage-polluted liquids, B., 694.
- Abbott, W. E. See also Gaunt, P.
- Abbott Laboratories, manufacture of arseno-bismuth compounds, (P.), B., 348.
- Abbott Laboratories. See also Adams, R., Raiziss, G. W., and Vliet, E. B.
- Abd El Shahid, M. See Trogus, C.
- Abderhalden, E., mode of action of enzymes attacking proteins and their constituent materials (polypeptides), A., 922.
- influence of various concentrations of phenol on the rate of alcoholic fermentation, A., 1056.
- [iron content of blood-serum], A., 1270.
- Abderhalden, E., and Brockmann, H., behaviour of polypeptides and their derivatives towards dilute alkalis and acids. II., A., 81.
- hydrolysis of polypeptides by *N*-alkali and by the enzymes of the pancreas, A., 1041.
- enzymic decomposition of polypeptides, A., 1042.
- Abderhalden, E., and Buadze, S., proof of the enzymic nature of the phenomena underlying the Abderhalden reaction, A., 1283.
- Abderhalden, E., and Fleischmann, R., enzymic decomposition of polypeptides of various composition and their behaviour to *N*-alkali; polypeptides containing mainly *L*-leucine, A., 1043.
- Abderhalden, E., and Franke, K., influence of thyroxine, 3:5-di-iodotyrosine, and thyroid-substance on the course of autolysis and on the action of erepsin and trypsin, A., 1055.
- decomposition of *D*- and *L*-alanine, glycyl-*D*-alanine, and *DL*-alanylglycine by the organism of the dog, A., 1277.

- Abderhalden, E., and Köppel, W., behaviour of polypeptides and their derivatives towards dilute alkalis and acids. IV. Polypeptides derived from *L*-cystine, A., 534.
- enzymic decomposition of polypeptides containing *L*-hydroxyproline, A., 1041.
- enzymic decomposition of polypeptides by erepsin and by trypsin-kinase: polypeptides containing *L*-cystine, A., 1042.
- Abderhalden, E., and Kröner, W., degradation of caseinogen, serum-globulin, and serum-albumin by dilute alkali, dilute acid, pepsin and hydrochloric acid, and pancreatic enzymes, A., 1283.
- structure of proteins, A., 1387.
- Abderhalden, E., and Mahn, H., action of alkalis, acids, and enzymes on proteins and allied substances. III., A., 784.
- structure of silk fibroin, A., 1387.
- Abderhalden, E., and Möller, P., origin of creatine, A., 551.
- behaviour of polypeptides and their derivatives towards dilute alkalis and acids. VI. Experiments with polypeptides substituted in the amino-group, A., 909.
- iron, copper, and manganese content of blood-serum, A., 913.
- behaviour of polypeptides and their derivatives towards dilute alkalis and acids. VII. *N*-Substituted polypeptides, A., 1148.
- Abderhalden, E., and Rossner, E., action of erepsin and trypsin on polypeptides containing *D*-glutamic acid, A., 1042.
- absorption of ultra-violet light by α -amino-acids, polypeptides, 2:5-diketopiperazines, and betaines, A., 1261.
- presence of polypeptides in blood-plasma and -serum; application of erepsin and trypsin-kinase for their detection, A., 1270.
- action of erepsin and trypsin-kinase on polypeptides containing *D*-glutamic acid, A., 1283.
- Abderhalden, E., and Schwab, E., stability of certain polypeptides and diketopiperazines containing serine towards enzymes and reaction changes, A., 534.
- specific adaptation of polypeptidases, A., 1043.
- Abderhalden, E., and Sichel, H., behaviour of polypeptides and their derivatives towards dilute alkalis and acids. I., A., 81.
- guanidine derivatives, from the action on guanidine of the esters of amino-acids, A., 511.
- compound of *D*-alanyl-*L*-tryptophan with *D*-alanyl-*L*-tryptophan anhydride, A., 527.
- formation of guanidino-compounds by the action of guanidine on amino-esters. II. Formation of creatinine from sarcosine ethyl ester and guanidine or cyanamide, and of *DL*-2-imino-4-keto-5-*p*-hydroxybenzyltetrahydroglyoxaline from *DL*-tyrosine ethyl ester and guanidine, A., 623.
- enzymic decomposition of polypeptides of various composition, A., 1042.
- action of erepsin and of trypsin-kinase on *L*-leucylpentaglycyl-*L*-tryptophan, A., 1283.
- Abderhalden, E., and Suzuki, S., behaviour of polypeptides and their derivatives towards dilute alkalis and acids. III. Glycine polypeptides, A., 81.
- behaviour of polypeptides and their derivatives towards dilute alkalis and acids. V. Polypeptides from glycine, A., 657.
- influence of the alcohol group of amino-acid esters on the rate of formation of 2:5-diketopiperazines and on the formation of guanidino-compounds by the action of guanidine on the various amino-acid esters, A., 716.
- Abderhalden, E., and Zeisset, W., decomposition of polypeptides containing amino-acids not known to occur in nature. VIII. Polypeptides containing $\alpha\alpha'$ -diaminosuberic acid, A., 1122.

- Abe, M. See Tadokoro, T.
- Abe, S., and Hara, R., catalytic oxidation of gaseous cyanogen to nitric oxide, and the intermediate product, A., 29.
- Abel, E., mechanism of reactions between hydrogen peroxide, iodine, and iodine ions, A., 1194.
- recovery of copper and nickel from solutions and residues, (P.), B., 58.
- Abel, E., and Hilderding, K., kinetics of the reaction between hydriodic and iodic acids, A., 1194.
- Abel, E., and Redlich, O., electrolytic preparation of cuprous oxide, A., 1101.
- Abel, E., Redlich, O., and Adler, J., binary systems cadmium-antimony and cadmium-lead, A., 1190.
- ternary system lead-antimony-cadmium, A., 1191.
- Abel, E., Redlich, O., and Lengyel, B. von, activity coefficients of nitric acid in aqueous solution, A., 591.
- Abel, E., and Schmid, H., kinetics of nitrous acid. I. and II., A., 374.
- kinetics of nitrous acid. III. Kinetics of the decomposition of nitrous acid, A., 847.
- kinetics of nitrous acid. VI. Relation between equilibrium and kinetics of the nitrous acid-nitric acid-nitric oxide reaction, A., 1194.
- Abel, E., Schmid, H., and Babad, S., kinetics of nitrous acid. IV. Kinetics of nitrous acid formation from nitric acid and nitric oxide, A., 1099.
- kinetics of nitrous acid. V. Nitrous acid-nitric acid-nitric oxide reaction, A., 1194.
- Abel, E., and Siebenschin, R., determination of the kinetics of excessively rapid reactions by separation of the reactions, A., 25.
- Abelin, I., thyroid gland and mineral metabolism; influence of disodium hydrogen phosphate and calcium salts on the action of the thyroid, A., 1287.
- Abelin, I., and Kürsteiner, P., influences of substances of the thyroid gland on fat metabolism, A., 1160.
- Abello, T. P., absorption of ultra-sonic waves by hydrogen and carbon dioxide, A., 5.
- absorption of ultra-sonic waves by various gases, A., 828.
- Abeloos, M., Barcroft, J., Cordero, N., Harrison, T. R., and Sendrey, J., oxygen capacity of hemoglobin, A., 1389.
- Abelous, Aloy, and Valdiguié, changes in carbohydrate solutions due to sunlight in presence of uranium salts and to ultra-violet rays, A., 255.
- Abels, G., and Titov, E., electric crucible furnace with air-inlet at the bottom, A., 984.
- Abolina, G. See Domontovitch, M.
- Abonnenc, L., surface tension of aqueous solutions of acids, A., 13.
- Aborn, R. H., and Davidson, R. L., structure of salts adsorbed on cellulose, A., 1183.
- Abonlenc, J. See Senderens, J. B.
- Abraham, D. See Levy, (Mlle.) J.
- Abraham, A., ability of human blood to form lactic acid in presence of monosaccharides, A., 191.
- production of a material [disinfectant] containing thymol and polymerised formaldehyde, (P.), B., 110.
- Abrams, A., apparatus for testing permeability of materials, (P.), B., 321.
- Abrams, H. See Watson, H. L.
- Abramsohn, D., modified Salkowski reaction for the determination of cholesterol in blood-serum, A., 1151.
- Abramson, H. A., cataphoretic protein mobility, A., 364.
- mechanism of the inflammatory process. III. Electrophoretic migration of inert particles and blood-cells in gelatin sols and gels with reference to leucocyte emigration through the capillary wall, A., 1273.
- Abramson, H. A., and Eggleton, P., utilisation of sodium *dl*-lactate administered intravenously. I. Excretion by kidneys and intestines. II. Changes in acid-base equilibrium, A., 197.
- Abramson, H. A., Eggleton, M. G., and Eggleton, P., utilisation of sodium *dl*-lactate administered intravenously. III. Glycogen synthesis by the liver; blood-sugar; oxygen consumption, A., 197.
- Abramson, H. A. See also Freundlich, H.
- Abt, G., depilation [of skins] by mould enzymes, B., 616.
- Acél, D., determination of cholesterol in blood, A., 1392.
- Aceta Ges.m.b.H., manufacture of artificial silk threads, (P.), B., 552.
- Acharya, D. P. See Kichlu, P. K.
- Achille Serre, Ltd., and Argent, J. B., cleaning of leather goods and furs, (P.), B., 239.
- Achille Serre, Ltd. See also Hatfield, A. E.
- Achmatowicz, O., structure of additive compounds of bornylene and halogen acids, A., 645.
- Achromeiko, A., influence of soil structure on fertility, B., 582.
- influence of pulverisation and drying of soil on its productivity, B., 618.
- Achterberg, F. See Weitz, E.
- Acker, F. C. See Mill, E. A.
- Ackeren, J. van, and Koppers Co., coking retort oven, (P.), B., 325, 394, 737.
- Ackeren, J. van. See also Koppers Co.
- Ackerman, D. E. See McKay, R. J.
- Ackerman, I. N., tube still for distillation of crude oil, B., 662.
- Ackermann, F. See Society of Chemical Industry in Basle.
- Ackermann, H., and Langenheim, W., conical crushing mill, (P.), B., 248.
- Ackermann, H., and Scheidhauer & Giessing Akt.-Ges., [press for] the manufacture of bricks, (P.), B., 485.
- Ackermann, H. See also Scheidhauer & Giessing Akt.-Ges.
- Ackermann, W. See Guertler, W.
- Ackers, Lonsdale & Co. Proprietary, Ltd., and Lonsdale, G., [cooling] treatment of sugar and like material, (P.), B., 941.
- Ackerson, C. W., and Blish, M. J., effect of cystine on the endogenous metabolism of moulting hens, A., 87.
- Ackerson, C. W. See also Mussehl, F. E.
- Acklin, O., keeping qualities of frozen meat, especially frozen sausage meat, B., 386.
- Acly, (Fr.) H. E., structure and stages of excitation of the molecules of some nitriles, determined from the ultra-violet absorption spectra of the vapours, A., 1071.
- Activated Sludge, Ltd., and Coombs, J. A., activated sludge process of purifying sewage and other impure liquid, (P.), B., 626.
- Adair, G. S., partial osmotic pressures and membrane equilibria, with special reference to the application of Dalton's law to haemoglobin solutions in the presence of salts, A., 1326.
- Adam, A., is the antirachitic vitamin of cod-liver oil an irradiated ergosterol? A., 333.
- Adam, M. A. See Antonov, G. N.
- Adam, N. See Gail, J. B.
- Adam, N. K., cohesion in surface films, A., 120.
- explanation of a so-called "intertraction" phenomenon, A., 473.
- structure of thin films. XI. Oxygenated derivatives of benzene, A., 937.
- Adam, N. K., Berry, W. A., and Turner, H. A., structure of thin films. X. Phenols and monoglycerides, A., 232.
- Adam, N. K., and Jessop, G., structure of thin films. XII. Cholesterol and its effect in admixture with other substances, A., 1172.
- Adam, P. A. See Kofler, L.
- Adam, W. B., colour-producing constituents of the cacao bean, B., 688.
- Adam, W. G., caking of ammonium sulphate, B., 87.
- Adamonis, F., Heintz's aldol and its preparation, A., 1117.
- Adams, C. S. See Smith, A. W.
- Adams, E. Q., chemiluminescence; energetics, spectra, intensity, and efficiency, A., 814.
- Adams, F. W., and Richards, C. W., prediction of boiling points of concentrated caustic-salt [sodium hydroxide-sodium chloride] solutions, B., 446.
- Adams, G., and McCollum, E. V., biological assay of cod-liver oil, A., 1059.
- Adams, G. L., and Standard Oil Development Co., flotation oil, (P.), B., 702.
- flotation method [for ores], (P.), B., 716.
- Adams, H. S., Meuser, L., and Nautaguck Chemical Co., manufacture of diphenylguanidine, (P.), B., 293*.
- Adams, J. B. See Atkinson, H.
- Adams, J. W. See Preston Street Combing Co., Ltd.
- Adams, L. H., change of compressibility with pressure, A., 116.
- Adams, L. V. See British Thomson-Houston Co., Ltd.
- Adams, M., and Billingham, R., essential oils in desert plants. I. Physical constants, B., 106.
- Adams, M. See also Sherman, H. C.
- Adams, P. H. See Rhamy, B. W.
- Adams, R., and Cohen, F. L., [preparation of] ethyl *p*-amino-benzoate, A., 636.

- Adams, R., Davidson, J. M., Gubelmann, J., and Newport Co., manufacture of 3:4-diamino-*o*-benzoylbenzoic acids, (P.), B., 440.
- Adams, R., Kern, J. W., and Shriner, R. L., [preparation of] benzylacetophenone [phenyl β -phenylethyl ketone], A., 642.
- Adams, R., and Marshall, J. R., use of platinum oxide-platinum-black in the catalytic reduction of aromatic hydrocarbons, XVII., A., 994.
- Adams, R., Stanley, W. M., Ford, S. G., and Peterson, W. R., ω -cyclohexylalkylacetic acids and their action towards *B. lepra*. VIII., A., 62.
- Adams, R., Stanley, W. M., and Stearns, H. A., cyclohexyl- and cyclohexylmethyl-alkylacetic acids and their action towards *B. lepra*. X., A., 754.
- Adams, R., Volwiler, E. H., and Abbott Laboratories, production of esters of aromatic acids [γ -dialkylaminopropyl aminobenzoates], (P.), B., 837*.
- Adams, R., and Voorhees, V., apparatus for catalytic reduction, A., 610.
- Adams, R., Voorhees, V., and Shriner, R. L., platinum oxide catalyst for reductions, A., 600.
- Adams, R. See also Arvin, J. A., Davies, L. A., Hamilton, T. S., Hyde, J. F., and Yohe, G. R.
- Adams, R. C., jun. See Schneidewind, R.
- Adams, W. C. See De Groote, M.
- Adams, W. L. See Gilbert, B. E.
- Adams-Hydraulics, Ltd. See Argent, J. T.
- Addingley, C. G., and Whytlaw-Gray, R., accurate method for comparing the compressibilities of gases below atmospheric pressure, A., 942.
- Adelantado, L., manufacture of phosphate fertilisers, (P.), B., 710.
- Adhikari, G., and Felman, J., experiments on the theory of heterogeneous reactions, A., 376.
- Adhikari, N. B. See Ray, (Sir) P. C.
- Adkins, H., and Broderick, A. E., rate of synthesis and hydrolysis of certain acetals, A., 274.
- semiacetal formation and the refractive indices and densities of mixtures of certain alcohols and aldehydes, A., 396.
- Adkins, H., and Perkins, P. D., behaviour of methyl alcohol over aluminium and zinc oxides, A., 376.
- Adkins, H. See also Carswell, H. E., Macquodale, D. W., Simington, R. M., Street, J. N., and Weston, P. E.
- Adkins, L. R. See Rogers, S. M.
- Adler, A., influence of acids on the water-binding capacity of serum, A., 127.
- determination of urobilinogen in urine and faeces, A., 320.
- Adler, A., and Bressel, M., determination of urobilinogen in faeces and urine by the new extraction method, A., 542.
- Adler, A., and Lange, H., lactic acid content of the blood in hepatic disease, A., 791.
- Adler, E., serum lipase; influence of chemical and physical treatment, A., 787.
- Adler, E., and Schwerin, K., ammonia of human blood, A., 316.
- Adler, H. See Lorenz, R.
- Adler, J. See Abel, E.
- Adler, O., and Adler, R., removal of germs from water, (P.), B., 350.
- sterilising water, (P.), B., 876.
- Adler, R. See Adler, O.
- Adler, S., relationship of the reduction of cupric oxide by dextrose to the concentration of copper sulphate used; cupric oxide as a by-product in this reduction, A., 156.
- Adolph, G., and Pietzsch, A., bleaching by means of oxygen [peroxides], (P.), B., 155.
- Adolphi, W., working-up [and analysis] of gold and silver scrap, B., 336.
- Adova, A. N., determination of protease and pH optimum, A., 202.
- Adova, A. N. See also Smorodincev, J. A.
- Aerocrete (Foreign), Ltd., and Nicol, C., production of porous concrete, etc., (P.), B., 929.
- Affonsky, S. I., influence of lipoids on the diffusion of acids and alkalis in gels, A., 833.
- African Selection Trust, Ltd., Boise, C. W., and Degenhardt, W. R., disintegrating or mixing apparatus, (P.), B., 72.
- Agafonov, V., red soils of Cochin China, A., 1110.
- Agasote Millboard Co., sizing of fibres, (P.), B., 363.
- manufacture of resin-coated board, (P.), B., 638.
- Agasote Millboard Co. See also Becher, H. L.
- Agathon, O. See Briner, E.
- Agcaoili, F. See Wells, A. H.
- Agde, G., and Alberti, E., explosion and fire risks with potassium and ammonium persulphates, and the most suitable methods of packing and storage, B., 481.
- Agde, G., and Schimmel, F., production of vitriols. III. System zinc sulphate-sulphuric acid-water, A., 480.
- existence of ferrous chloride hexahydrate, A., 856.
- Agel, F. E. See Papish, J.
- Agnew, W. J., determination of minute amounts of cobalt in steel, B., 233.
- colorimetric determination of small amounts of iron in zinc, B., 234.
- Agnoli, R., influence of a lipid pituitary hormone on the decamination process in organs, A., 1160.
- Agostini, P. See De Carli, F.
- Agricultural Education Association, revised official British method for mechanical analysis [of soils], B., 906.
- Agthe, C. A., production of emulsions, (P.), B., 391*.
- Ahlberg, R., resolution of γ - α -sulphodi-*n*-butyric acid, A., 618.
- α -ethyl- α' -sulphodipropionic acid, A., 619.
- kinetics of the transformation of the active α -sulphodi-*n*-butyric acids, A., 619.
- Ahlburg, F. See Gilmore, F. E.
- Ahlfeld, F., bolivianite and silosite, A., 391.
- Ahrens, F., production of acid- and alkali-resistant coatings of rubber upon metal objects, with the employment of an intermediate layer of rubber, (P.), B., 204.
- Ahuja, R. S. See Singh, M.
- Aichholzer, W., flocks in chromium-steel, B., 860.
- Aiken, E. L., and Carboid Products Corporation, plastic material; flexible moulded articles from condensation products, (P.), B., 457.
- Ainlay, T. W., ore separator, (P.), B., 269.
- Air Liquide. See L'Air Liquide.
- Air Reduction Co. See Houseman, C. R., and Schlitt, J. L.
- Aitken, P. W., chemistry of *Phormium tenax*, B., 227.
- Aitken, R. S., measurement of chlorine-ion potentials in the presence of proteins, A., 1292.
- Aitken, R. S., and Clark-Kennedy, A. E., concentration of carbon dioxide in successive portions of an expired breath, A., 661.
- Aiyer, A. R. P. See Annett, H. E.
- Ajax Electrothermic Corporation, and Northrup, E. F., electric heating of travelling material, (P.), B., 199.
- Ajax Electrothermic Corporation. See also Northrup, E. F.
- Ajax Metal Co. See Wyatt, J. R.
- Akabari, S., oxidation of amino-acids with sugars, A., 400.
- Akahira, T., relation between the carbon, hydrogen, and oxygen contents in cotton cellulose under thermal decomposition, and its loss of weight, B., 924.
- Akatsuka, H., effect of sympathetic and parasympathetic poisons on the content of creatine in muscle, A., 1400.
- Åkerlöf, G., decomposition of diacetone alcohol in alkali hydroxide solutions, A., 137.
- decomposition of diacetone alcohol by weaker bases, A., 485.
- decomposition of diacetone alcohol by sodium hydroxide in water mixtures of organic solvents, A., 716.
- Åkerlöf, G. See also Harned, H. S.
- Akiyama, K. See Matsui, M.
- Akiyama, M., condensation of water vapour on charged atoms of actinium-A, A., 1069.
- Akovbians, G. A., and Hamburtzev, V. A., absorption spectra of blood from man, ox, and frog, A., 538.
- Aktiebolaget Båsta. See Heijkenskjöld, G. O. W.
- Aktiebolaget Elektrisk Malmletning, discovering and determining the position, configuration, and nature of ores, solutions of salts, or other bodies, (P.), B., 529.
- Aktiebolaget Ferriconcentrat, and Mueller, H. A., enriching oxide iron ores flue dust from blast furnaces, burnt pyrites, purple ore, etc., (P.), B., 715.
- Aktiebolaget Ljungströms Angturbin, producing a mixture of air and combustion products to be used for combustion in furnaces provided with rotating air preheaters, (P.), B., 39.
- regenerative heat-exchanging device, (P.), B., 430.
- Aktiebolaget Ljungströms Angturbin. See also Ljungström, F.
- Aktiebolaget Separator, production of neutral fat and soap from soap stock, (P.), B., 130.
- discharge of liquids from centrifugal separators, (P.), B., 658.
- apparatus for the separation of vegetable oils, e.g., crude olive oil, from juice, (P.), B., 826.

- Aktiebolaget Separator, centrifugal separators, (P.), B., 879.
- Aktiebolaget Separator-Nobel, and Malm, K. G., removal of paraffins from fluid hydrocarbons, (P.), B., 843.
- Aktiebolaget Svenska Fläktfabr., and Olsson, J. G., increasing the capacity of drying installations [for paper-making], (P.), B., 445.
- Aktiebolaget Svenska Maskinverken, and Eriksson, E. G., evaporating apparatus, (P.), B., 353.
- Aktiebolaget Sveriges Litografiska Tryckerier. See Ruth, R.
- Aktien-Gesellschaft für Anilin-Fabrikation, dry fungicide for seeds, (P.), B., 830.
- Aktien-Gesellschaft für Anilin-Fabrikation. See also I. G. Farben-ind. A.-G.
- Aktien-Gesellschaft Brown, Boveri, & Co., joint-making packing for high-pressure vessels, etc., (P.), B., 217.
- arrangements for feeding [electric] furnaces working with open arcs, (P.), B., 306.
- [control of temperature in] electric annealing resistance furnace, (P.), B., 791.
- Aktien-Gesellschaft Clander. See Müller, Hermann.
- Aktien-Gesellschaft für Kohlensäure-Ind., and Auerbach, E. B., refining or fractionating mineral oils and mineral oil products, (P.), B., 843.
- refining or fractionating of oils, (P.), B., 919.
- Aktien-Gesellschaft Lignose, production of trinitrotoluene, (P.), B., 770.
- Aktien-Gesellschaft für mediz. Prod. Chem. Fabr., manufacture of margarine and similar butter-like edible fats, (P.), B., 792.
- Aktien-Gesellschaft für Stickstoffdünger. See Norske A./S. für Elektrokem. Ind.
- Aktieselskapet Niro, atomiser, (P.), B., 41.
- Aktieselskapet Norsk Staal (Elektrisk-Gas-Reduktion) and Edwin, E., production of synthetic pig iron, (P.), B., 372.
- production of reducing gases, (P.), B., 738.
- Aktieselskapet Norsk Staal (Elektrisk-Gas-Reduktion). See also Edwin, E.
- Aktieselskapet de Norske Saltverker, manufacture of electric cables, etc., (P.), B., 759.
- Alaschenski, G. See Silesia Versin Chem. Fabr.
- Albanese, A., and Pedroni, A., fluid extracts. I. Fluid extract of *Ochlidonia*, B., 729.
- Albanese, A. See also Oddo, B.
- Albers, D., properties of cacao butter and detection of foreign fats in chocolate, B., 653.
- Albers, W. See Barrenschneen, H. K.
- Albersheim, W. J., and Konheim, H. S., apparatus for determination of viscosity of fluids, (P.), B., 3.
- Albert, A., manufacture of crystallised arsenobenzenes, (P.), B., 244.
- Albert, A. See also Pfleger, J.
- Albert, A. F., and Schneider, W., mercuration of aromatic amines and the problem of substitution. I., A., 1266.
- Albert, W. B. See Graber, L. F.
- Alberti, E. See Agde, G.
- Albion Clay Co., Ltd. See Lawton, G. O.
- Albizzati, C. M., "lead disease" [of plants], A., 1291.
- Albizzati, C. M. See also Ducloux, E. H.
- Albrecht and Wolff, pendulum viscosimeter, B., 429.
- Albrecht, A. See Blackburn, J.
- Albrecht, F. See Brass, K.
- Albrecht, H. O., chemiluminescence of aminophthalic hydrazide, A., 1307.
- Albrecht, O. See Kuhn, R.
- Albrecht, W. See Wedekind, E.
- Albu, H. W. See Zocher, H.
- Alcalai, R., tanning materials, (P.), B., 763.
- Alcock, H. E. See Laporte, Ltd., B., and Weber, I. E.
- Alder, H. See Schuette, H. A.
- Alder, K. See Diels, O.
- Alderks, O. H. See Hilman, G. C.
- Aldrich, M., and Bledsee, M. S., metabolism of the bile. I. Determination of bile acids in blood, A., 788.
- Aldrich, M. See also Greene, C. H.
- Aldrich, T. B. See Kamm, O.
- Aldridge, B. G. See Gard, E. W.
- Aleksandrov, I. A., physico-chemical basis for the cementing of oil wells with Portland cement, B., 512.
- Alekseeva, E. N. See Medvedev, S. S.
- Alekseeva, K. I., surface tension of a mixture of ethyl alcohol and water. I., A., 832.
- Alekseevski, E. V., influence of quartz lamp irradiation on adsorptive power of certain adsorbents, A., 1307.
- Alessandrini, M. E., determination of trioxymethylene, A., 1357.
- Alessandrini, M. E. See also Marotta, D.
- Aletter, F., production of electric lead accumulators, (P.), B., 98.
- Alexander, O. M., gas and liquid contact apparatus, (P.), B., 431.
- fractionation of oils, (P.), B., 439.
- Alexander, H. H., purification of metals [copper], (P.), B., 932.
- Alexander, N. S. See Burbidge, P. W.
- Alexander, P. P. See British Thomson-Houston Co., Ltd.
- Alexander, T. J. R. See Imperial Chemical Industries, Ltd.
- Alexée, A., decomposition of dextrose in the animal organism, A., 201.
- Alexée, D., and Matalski, V., diffusion of gaseous mixtures through membranes, A., 232.
- Alexéeva, E. See Medvedev, S.
- Alexeievsky, A. P., formation of negative ions, A., 1301.
- Altend, S. See Mitchell, L. C.
- Alfthan, K., determination of small quantities of free chlorine, A., 978.
- [use of dimethyl-*p*-phenylenediamine hydrochloride as] indicator for chlorine [in water], B., 838.
- Algemeene Norit Maatschappij, production of activated carbon, (P.), B., 883.
- Algrain, M. See Vandoni, R.
- Allaire, H. See Javillier, M.
- Allam, P. S. See Brady, O. L.
- Allan, H. L., Moore, J., and Burmah Oil Co., Ltd., [paraffin] wax sweating and crystallising apparatus, (P.), B., 116*.
- Allan, J., and Moore, C. W., phytosteryl acetate test and the phytosterol of sunflower seed oil, B., 163.
- Allan, J. S., gelatin, B., 133.
- Allan, M. P. See Pratolongo, U.
- Allan, W., extraction and refining of paraffin wax, B., 512.
- Allard, G., determination of the crystal lattice of powdered microcrystalline substances by means of radiograms, A., 349.
- allotropic form of silver, A., 940.
- Allardyce, W. J., catalytic dehydration of isopropyl alcohol, A., 393.
- Allochorne, E. See Bacharach, A. L.
- Allegheny Steel Co. See Schulte, L.
- Allegre, C., Brunel, H., Galinou, G. P., and Lauriac, J. E., utilisation of bark and wood waste for the production of cellulose, (P.), B., 121.
- Allemann, E., determination of ionic partition coefficients, A., 1086.
- Allen, C. F. H., [preparation of] γ -chlorobutyronitrile, A., 624.
- [preparation of] dibenzoylmethane (phenyl α -hydroxystyryl ketone), A., 643.
- Allen, E. R., Kaufmann, W. E., and Du Pont de Nemours & Co., E. I., manufacture of a dispersing powder, (P.), B., 419.
- Allen, F. M., myrtillin, A., 1400.
- Allen, H. B., and Diston & Sons, Inc., H., alloy steel, (P.), B., 756.
- Allen, K. van, powder adapted to liberate iodine, (P.), B., 333.
- Allen, L., new sampling pipette for sampling viscous liquids and lard-like substances, B., 801.
- Allen, L. A., calorific value of soluble carbohydrates in feeding-stuffs, A., 1397.
- Allen, N. P. See Russell, T. F.
- Allen, P., jun. See Kohler, E. P.
- Allen, P. C., and Hinshelwood, C. N., catalytic decomposition of gaseous acetaldehyde at surface of various metals, A., 1337.
- Allen, S. G., carrying-out of the Bessemer process [for steel], (P.), B., 372.
- Allen, S. G. See also Tolman, R. C.
- Allen, W. H., treatment of fouled enamel-removing solutions, (P.), B., 203.
- rust-proofing process, (P.), B., 235.
- Allen & Co., Ltd., E., and Coles, W. J., rotary kilns, dryers, etc., (P.), B., 248.
- Alles, G. A., comparative physiological action of phenylethanolamine, A., 200.
- Alles, G. A. See also Cohn, E. J., and Conant, J. B.
- Allgemeine Elektrizitäts-Gesellschaft, manufacture of [oxide] cathodes for discharge devices, (P.), B., 646.
- Allgemeine Elektrizitäts-Gesellschaft. See also International General Electric Co., Inc.
- Allgemeine Gesellschaft für Chemische Industrie, purification of hydrocarbons and the like by liquid sulphur dioxide, (P.), B., 181.

- Allgemeine Gesellschaft für Chemische Industrie, treatment of gasoline and similar petroleum products, (P.), B., 779.
purification of liquid hydrocarbons by liquid sulphur dioxide in counter-current, (P.), B., 779.
- Allgemeine Gesellschaft für Chemische Industrie. See also Edeleanu, L., Hess, W., and Jodeck, P.
- Allibone, T. E., and Sykes, C., alloys of zirconium. I., B., 410.
- Allied Process Corporation. See Welter, G.
- Allin, (Miss) E. J., under-water spark spectra of various metals, A., 211.
- Allinger, M., manufacture of unsaturated hydrocarbons, esters, and salts [camphene, isobornyl acetate, sodium acetate], (P.), B., 845.
- Allingham, J., manufacture of zinc, (P.), B., 644.
- Alliott, E. A. See Hatfield, A. E.
- Allis-Chalmers Manufacturing Co., and Newhouse, R. C., crusher, (P.), B., 39.
- Allis-Chalmers Manufacturing Co. See also Keine, W. E.
- Allison, F. E., growth of *Bacillus radicicola* on artificial media containing various plant extracts, B., 239.
- Allison, J. B., and Hixon, R. M., electron-sharing ability of organic radicals; dextrose and other poly-alcohols, A., 275.
- Allison, S. K., relative intensities of X-ray lines in the L-spectrum of uranium, A., 938.
- Allman, P., and Morris, H. N., production of designs [in colour] on rubber or like materials penetrable by volatile solvents but otherwise non-absorbent, (P.), B., 827.
- Allmand, A. J., and Hunter, E., activity coefficients of aqueous solutions of lead chloride at 25°, A., 591.
- Allmand, A. J., and Puttick, A., electrolytic oxidation of *p*-toluic acid in alkaline solution, A., 30.
- Allmand, A. J., and Webb, W. W., photolysis of sodium hypochlorite solutions, A., 254.
- Allott, E. N., disappearance of intravenously injected α -, β -, and $\alpha\beta$ -glucose from the blood, A., 793.
- Alloy Steel Corporation. See Herman, G. N.
- Almási, L. See Erdély, A.
- Almeida Accumulators, Ltd. See Levy, L. A.
- Aloy. See Abelous.
- Aloy, J., and Aversenq, J., radioactivity of some springs of the Pyrenean region, A., 502.
- Alpern, D., and Tutkevitch, L., inflammation, A., 667.
- Alpers, E., determination of stone-cells in cacao products, B., 313.
- Alphen, H. C. von, measurement of radiation from a tungsten lamp, A., 805.
- Alphen, J. van, migration of diphenylmethyl and benzyl groups in phenol, A., 57.
direct substitution in the benzene nucleus, A., 289.
asarylaldehyde [2:4:5-trimethoxybenzaldehyde]. II., A., 291.
p-tolyl triphenylmethyl ether and its reaction with zinc chloride, A., 410.
1:3:4-oxdiazines. I. and II., A., 780, 1386.
- Alquier, J., composition, constitution, and food value of residues from the grinding of wheat, B., 33.
- Alsberg, C. L., starch in flour, B., 104.
- Alsberg, C. L., and Griffing, E. P., heat coagulation of gluten, B., 105.
- Alsberg, C. L. See also Stone, J. B.
- Alsberg, J., and Heller & Co., B., separation of liquids, (P.), B., 284.
- Altenburg, J. See Eichelbaum, G.
- Alterhoff, W., determination of the amount of weighting of silk crêpe-de-chine fabrics, B., 9.
- Alterthum, H. See Koret, F.
- Altman, P. E., behaviour of cellulose towards acids, B., 257.
- Altpeter, L., centrifuges, (P.), B., 320, 508.
- Altwegg, J. See Soc. Chim. des Usines du Rhône.
- Aluminium-Ind. Akt.-Ges., electrolytic extraction of pure aluminium from crude aluminium alloys, etc., (P.), B., 21.
manufacture [refining] of aluminium, (P.), B., 412.
electrolytic extraction of aluminium, (P.), B., 644, 933.
- Aluminum Co. of America, Doerschuk, V. C., and Frary, F. C., calcining of coke [for electrodes], (P.), B., 6.
- Aluminum Co. of America, and Horsfield, B. T., purification of alumina, (P.), B., 231.
- Aluminum Co. of America. See also Archer, R. S., Doerschuk, V. C., Horsfield, B. T., Shumaker, F. D., and Stay, T. D.
- Alvarado, A. M., catalytic dehydration of ethyl alcohol by alumina, A., 504.
- Alvord, E. B., and Grasselli Chemical Co., production of sodium hydrosulphide and valuable by-products, (P.), B., 90.
- Amagat, (Mlle.) P. See Ramart, (Mme.) P.
- Amaldi, E. See Segrè, E.
- Amann, A., and Chemische Fabrik. K. Albert G.m.b.H., production of resinous bodies from formaldehyde and colophony, (P.), B., 276.
- Amar, J., combined water of colloids, A., 835.
- Amati, A. See Levi, M. G.
- Amberg, S., Landsbury, J., and Sawyer, F., use of gelatin-oleate mixtures for the demonstration of small amounts of calcium, A., 1347.
- Amberger, K., action of hydrocyanic acid on fruit and vegetables and its determination, B., 727.
determination of alcohol by distillation, B., 833.
- Amberger, K., and Hepp, K., horse radish and its preparations, B., 315.
- Amberger, K., and Wheeler-Hill, E., comparison of the methods for separating solid and liquid fatty acids, B., 306.
composition of oat oil, B., 307.
- Ambert, P. See Fleury, P.
- Ambronn, H., simultaneous effects of rod- and specific-double refraction. IV., A., 221.
- Amdyco Corporation, Dunlap, F. L., and Ewer, N. T., fire-extinguishing composition, (P.), B., 353.
- Amende, J. See Arnlt, F.
- American Arch Co. See Stevens, E. P.
- American Automotive Corporation. See Werby, A. B.
- American Bemberg Corporation. See Elsaesser, E.
- American Brass Co., copper-silicon-manganese alloys, B., 932.
- American Ceramic Society, standards report of the American Ceramic Society, B., 524.
- American Coalinoil Corporation, manufacture of liquid fuel, (P.), B., 631.
- American Creosoting Co. See Fulks, E. B.
- American Cyanamid Co., manufacture of ammonia phosphate fertiliser, (P.), B., 724.
- American Cyanamid Co. See also Barsky, G., Buchanan, G. H., Charlton, H. W., Cox, G. E., Davis, C. P., Giles, I. V., Griffith, P. W., Heuser, R. V., Romieux, C. J., and Rugb, J. M.
- American Encaustic Tiling Co., Ltd., tunnel kilns, (P.), B., 605.
manufacture of ceramic ware, (P.), B., 712.
- American Encaustic Tiling Co., Ltd. See also Prouty, T. C.
- American Glue Co. See Campbell, C. H.
- American Hydrocarbon Co., Inc., retorts for distilling coal, shale, and other fragmentary solid material, (P.), B., 918.
- American Hydrocarbon Co., Inc. See also Clayton-Kennedy, K. E.
- American Ichthyol Oil Co. See Rowland, D. H.
- American Lakes Paper Co. See Kress, O.
- American Lanil Corporation. See Schweitzer, H.
- American Laundry Machinery Co., drying apparatus for laundry and dry-cleaning purposes, (P.), B., 854.
- American Laundry Machinery Co. See also Carroll, E. J.
- American Lurgi Corporation. See Gensecke, W.
- American Machine & Foundry Co., fusible lead alloys, (P.), B., 820.
- American Machine & Foundry Co. See also Millring, E. R.
- American Magnesium Corporation. See Osborne, H. H.
- American Metal Co., Ltd. See Burkey, H. M.
- American Metallurgical Corporation. See Hanson, A. J.
- American Miag Corporation. See Moebius, H. O.
- American Milling & Refining Co. See Branthaver, M. E.
- American Protein Corporation. See Atwood, F. C.
- American Pulverizer Co. See Roebke, E. T.
- American Resistor Corporation, and Shaw, H. N., electrical furnaces; electrical heating apparatus, (P.), B., 338.
- American Rolling Mill Co. See Reinartz, L. F.
- American Rubber Co. See Teague, M. C.
- American Sheet & Tin Plate Co., purification and drying of oil separated from aqueous emulsions, (P.), B., 150.
removing, purifying, and recovering oil from tin plate; separating oil from aqueous emulsions, (P.), B., 235.
apparatus for the manufacture of tin plates, (P.), B., 373.
apparatus for separating and recovering oil from an emulsion of oil and water, (P.), B., 375.
- American Sheet & Tin Plate Co. See also McFetridge, J.
- American Smelting & Refining Co., refining metals [removal of zinc from lead], (P.), B., 304.
- American Smelting & Refining Co. See also De Saulles, C. A. H., Hall, H. W., Morrison, W. M., O'Harra, B. M., Read, C. L., and Rose, C. A.

- American Society for Testing Materials, tentative standards [of specification and practice], B., 351.
[standard specifications for] non-metallio materials, B., 351.
[standard specifications for] metals, B., 372.
- American Solvent Recovery Corporation. See Barnebey, O. L.
- American Solvents & Chemical Corporation of California. See Crowell, R. B.
- American Tar Products Co. See Clarke, E. W.
- American Telephone & Telegraph Co. See Schröter, F.
- Amerine, de W. C., method of washing cooked straw, (P.), B., 853.
- Amiesite Asphalt Co. of America. See Sadtler, S. S.
- Amin, B. M. See Puri, A. N.
- Aminoff, G., evaporation and dissolution phenomena of zinc, A., 110.
evaporation of rhombic sulphur, A., 696.
- Amme, E., Dienst, K., and Uhle, D. J., rotary furnace, (P.), B., 898.
- Amme-Luther Werke Braunschweig der "Miaß" Mühlenbau & Ind., Akt.-Ges., impact or beater mills, (P.), B., 248.
manufacture of coloured Portland cement, (P.), B., 485.
manufacture of cement, (P.), B., 672.
- Ammon, R., permeability of surviving animal membranes, A., 913.
- "Ammonia," purification of gas of the kind derived from the distillation of coal or coke, (P.), B., 115.
- Ammonia Casale Société Anonyme, tight closure or connecting means for tubes or receptacles for fluids under pressure, (P.), B., 698.
- Ammonia Corporation. See Svance, H.
- Amos, A. See Woodman, H. E.
- Amos, A. J. See Kent-Jones, D. W.
- Amonreux, G. See Berthelot, A.
- Amsler-Morton Co. See Morton, W. A.
- Amy, L., gum arabic, A., 1408.
- Amy, L. See also Bayle, E.
- Anable, A., Dorr classifiers for clay-washing, B., 858.
- Anaconda Copper Mining Co., production of copper cakes, (P.), B., 821.
- Anaconda Copper Mining Co. See also Larison, E. L.
- Anagnostopoulos. See Ramart, (Mme.) P.
- Anand, H. L., and Bhatnagar, S. S., photochemical reactions; influence of polarised rays on the reaction between sodium and potassium amalgams and water, A., 255.
- Anand, H. L. See also Bhatnagar, S. S.
- Anastasi, C. See Guglielmini, L.
- Anastasiadis, L. See Guertler, W.
- Ancel, S., action of various gases on the hen's egg; absorption of carbon monoxide as an inert gas, A., 919.
- Ancelle, R. See Vila, A.
- Anchor Cap and Closure Corporation and Mullen, G. W., [steam-heated retorts for] preservation of food, (P.), B., 729.
- Ancienne Maison Jolly-Belin. See Soc. Anon. des Établ. Petitdidier.
- Anciens Établissements Barbier, Bénard, & Turenne (Société Anonyme), separation of rocks and minerals from clay gangue, (P.), B., 96.
- Anciens Établissements A. Combe & Fils & Cie. Société Anonyme, printing of chrome leather, (P.), B., 167.
- Anciens Établissements A. Savy Jeanjean & Cie. Société Anonyme. See Baker Perkins, Ltd., Head, R., and Prescott, W. E.
- Andale Engineering Co., strainers, (P.), B., 628.
- Andant, A., and Rousseau, E., photolytic action on pure sucrose of the total or filtered radiations of the mercury arc, A., 255.
- Anderegg, F. O., and Lutz, R. P., study of base exchange in soils with the aid of the quinhydrone electrode, B., 167.
- Andersen-Orris, A. C. E., emulsifying machine, (P.), B., 320.
- Anderson, A. B., and Anderson, M. D., effect of adrenaline on ketosis in phloridzinised and normal rats, A., 90.
- Anderson, A. C., composition and analysis of Danish butter, B., 66.
- Anderson, A. G., and Hooker, H. D., soil treatments and seasonal chemical changes in the sour cherry, B., 584.
- Anderson, (Miss) A. I., dielectric constant of liquid bromine, A., 347.
- Anderson, A. J. See Phelps, C. A.
- Anderson, B. See Gahl, R.
- Anderson, C. C. See Freudenberg, K.
- Anderson, E., and International Precipitation Co., apparatus [discharge electrode] for electrical separation of suspended particles from gases, (P.), B., 22.
- Anderson, E. A. See Peirce, W. McG.
- Anderson, E. G. E. See Bunker, J. W. M.
- Anderson, H. G. S., production of metals [zinc] from ores, (P.), B., 527.
- Anderson, I. B., Thomson, R. F., Thomas, J., and Scottish Dyes, Ltd., production of benzanthrone derivatives, (P.), B., 740.
production of dye intermediates [pyrazokanthrone], (P.), B., 847.
- Anderson, J., operating experiences with 1300 lb. steam pressure, B., 215.
- Anderson, J. See also British Alizarine Co., Ltd.
- Anderson, J. A., Peterson, W. H., and Fred, E. B., production of pyruvic acid by certain nodule bacteria of the *Leguminosæ*, A., 552.
- Anderson, J. A. See also Holmes, H. N.
- Anderson, J. H., means for distilling carbonaceous material, (P.), B., 777.
- Anderson, J. M. See McLennan, J. C.
- Anderson, L., and Hill, D. W., spontaneous resolution of externally compensated mixtures, A., 653.
- Anderson, L., and Sands, L., [preparation of] l-arabinose, A., 620.
- Anderson, L. See also Thompson, T. G.
- Anderson, L. C., absorption spectra of some triphenylmethane derivatives, A., 219.
- Anderson, L. C., and Gomberg, M., tautomerism of hydroxy-triarylcannabinols, A., 285.
- Anderson, M. D. See Anderson, A. B.
- Anderson, N., preparation of succinodehydrogenase, A., 445.
- Anderson, P., apparatus for sintering metal ore, (P.), B., 269.
- Anderson, R. J., and Nabenhauer, F. P., anthocyanins in the pigment of Isabella grapes, A., 207.
- Anderson, R. T. See Anderson Co., V. D.
- Anderson, R. W., heat-insulating coverings, (P.), B., 72.
- Anderson, S. H., striking potentials of metallic arcs in a vacuum, A., 1308.
- Anderson, V. G., and Dickson, J. R., determination of dissolved oxygen in water, B., 390.
- Anderson, W., the Laurent saccharimeter, B., 725.
- Anderson, Wilhelm, Unsöld's theory of the chromosphere, A., 214.
[structure of Fraunhofer lines and quantitative spectrum analysis of the atmosphere of the sun], A., 805.
Gurney theory of the origin of the helium lines in the spectrum of the chromosphere, A., 1295.
degeneration of electron gases in the interior of stars, A., 1303.
- Anderson, W. E., and Mendel, L. B., relation of diet to quality of fat produced in the animal body, A., 546.
- Anderson, W. T., jun., and Bird, L. F., measurement of ultra-violet quanta by fluorescence photometry, A., 1076.
- Anderson Co., V. D., and Anderson, R. T., production of cereal and other food products, (P.), B., 138.
- Anderson & Son, Ltd., D., and Child, R. O., treatment of bitumen and other materials adaptable for insulating or dielectric purposes, (P.), B., 594.
- Ando, G., reflective powers of some eutectic alloys in relation to their micro-structures, A., 698.
determination of the degree of tarnishing of a metallic surface by its reflective power, A., 717.
- André, E., flour from linseed from which the oil has been expressed, B., 491.
- André, E., and Jouatte, D., oils of the chaulmoogra group; gorli fat, B., 491.
- André, E. See also Randoin, L.
- Andreas, A., calcining cement, lime, etc., in a shaft kiln, (P.), B., 93.
burning of cement, (P.), B., 368, 642.
- Andreasch, R., rhodanine and related compounds, A., 780.
- Andreasen, A. H. M., milling material; distribution of particle size in the ground product, B., 915.
- Andreasov, L. M., velocity of reaction between amylene and tri-chloroacetic acid in different solvents, A., 1195.
- Andréev, G., comparison of foreign and Soviet lubricating oils, B., 661.
- Andreevski, I. See Ipatiev, V. N.
- Andres, A. H., displacement of the isoelectric point of erythrocytes depending on their age, A., 661.
- Andress, K. R., action of highly concentrated nitric acid on cellulose, A., 1226.
- Andrew, H. V., and Betjemann & Sons, Ltd., G., preparation of fish skins for making "shagreen," (P.), B., 496.
- Andrew, J. P., and General Motors Corporation, recovery of bromine, (P.), B., 333.

- Andrew, R. L., arsenic in New Zealand-grown apples, B., 241.
- Andrewartha, W. G., manufacture of methyleugenol, (P.), B., 703.
- Andrews, A. J. See Pogue, C. N.
- Andrews, C. E., and Selden Co., temperature-regulating system, (P.), B., 391.
- purification [of phthalic anhydride], (P.), B., 923*.
- Andrews, C. E. See also Canon, F. A., and Selden Co.
- Andrews, C. W., manufacture of producer gas, (P.), B., 252.
- production of carburetted water-gas, (P.), B., 560.
- Andrews, C. W., and Chapman, W. B., gas generators, (P.), B., 252.
- Andrews, D. H. See Bates, J. R.
- Andrews, E. See Thomas, W. A.
- Andrews, E. F., and Andrews-Hammond Corporation, electrolytic condenser, (P.), B., 612.
- Andrews, J. C., and De Beer, E. J., optical isomerides of cystine and their isoelectric solubilities, A., 950.
- Andrews, J. C., and Worley, F. P., mutarotation. III. Dextrose equilibria in methyl alcohol and mixtures of methyl alcohol and water, A., 25.
- Andrews, J. C. See also Worley, F. P.
- Andrews, J. W., determination of the purity of elementary boron, B., 51.
- Andrews, J. W. See also Standard Telephones & Cables, Ltd., and Western Electric Co. Inc.
- Andrews, L., elutriators for testing finely-divided, pulverulent, or like materials, (P.), B., 378.
- Andrews, L. V., and Riley Stoker Corporation, pulverising apparatus, (P.), B., 2.
- Andrews, R. C. See Williams, R. J.
- Andrews-Hammond Corporation. See Andrews, E. F.
- Andrianov, P. I., the "wilting coefficient" and other moisture values in soils, B., 938.
- Andriessen, A. See Pummerer, R., and Tietig, C.
- Andrien, A., preservation of eggs, (P.), B., 34.
- Andrieux, L., electrolytic preparation of the borides of calcium, strontium, and barium, A., 850.
- preparation and properties of a boride of cerium, A., 854.
- Andriska, O., bromometric examination of ointments and fats, B., 835.
- Andronikov, N. N. See Teletov, J. S.
- Andrus, O. E., Hermanson, S., and Smith Corporation, A. O., oil-refining still, (P.), B., 779.
- Andrussov, L., catalytic oxidation of ammonia. VII. and VIII., B., 261, 669.
- Andrussov, L. See also Frankenburger, W.
- Andsten, C. A., strength of curved walls exposed to external pressure, B., 391.
- Angel, G., determining heat consumption for caustic [soda and potash] dehydration, B., 50.
- electrical heating equipment for chemical work, B., 97.
- Angel, T. H. See Coates, J. E.
- Angelescu, E., Saidel's method for the investigation of aqueous soil solutions, B., 684.
- Angelescu, E., and Comănescu, V. N., adsorption in mixtures of solvents, A., 581.
- Angelescu, E., and Dumitrescu, D., solubility in mixtures of solvents. I. Solubility of picric acid, A., 579.
- Angelescu, E., and Mircescu, J., blue coloration given by iodine in presence of starch, A., 1183.
- Angeletti, A., guaiacol cacodylate, A., 311.
- Angeli, A., biochemical transformation of tyrosine into pyrrole derivatives, A., 89.
- diazocompounds, A., 1129.
- Angeli, A., and Poggi, R., mobility of some halogen atoms, A., 1370.
- Angerer, K. von, physical chemistry of d'Herelle's phenomenon, A., 674.
- Angern, O. See Pfeiffer, P.
- Anglo-American Corporation of South Africa, Ltd., solvent treatment of copper ores, (P.), B., 715.
- Anglo-Persian Oil Co., Ltd., Beale, E. S. L., Coxon, G. H., and Dunstan, A. E., pressure-cracking treatment of liquid hydrocarbons, (P.), B., 701.
- Anikin, B. See Yakimov, P.
- Anjow, K., and Mitsubishi Kogyo Kabushiki Kaisha, making metallic tungsten, (P.), B., 321.
- Annett, H. E., Aiyer, A. R. P., and Kayasth, R. N., losses and gains of nitrogen in an Indian soil, B., 869.
- Annieq, J., continuously sealding and dyeing cotton in bundles or waste, (P.), B., 332.
- spool or cop cores for spool or cop dyeing, (P.), B., 445.
- mounting textile bobbins to be dyed in columns, (P.), B., 783.
- Anode Rubber Co., Ltd., direct production of homogeneous rubber goods from rubber dispersions by electrical means, (P.), B., 650.
- producing dipped goods from organic dispersions, (P.), B., 827.
- Anosov, V. J., refractometry of binary liquid systems, I. and II., A., 116.
- Anosov, V. J. See also Trifonov, N. A.
- Anschütz, L., and Broeker, W., mechanism of the reaction between pyrocatechol and phosphorus trichloride, A., 880.
- Anschütz, R. [with Scharfenberg, O., Trummel, P., Volborth, A. von, and Neuhaus, O.], history of the isomerism of fumaric and maleic acids, A., 737.
- Anschütz, R., and Quitmann, H., synthesis of trimethylcyclohomotetronic acid, A., 737.
- Anselmino, K. J., permeability of artificial colloidal membranes. I. Action of acid-base swelling on the permeability of gelatin and agar membranes, A., 233.
- Anslo, W. K., and King, H., neutral salt additive compounds of *N*-methylated glycines: their formulation and that of their hydrates, A., 1362.
- Anthoine, R., treatment of low-grade ores, (P.), B., 645.
- Antimony Products Corporation. See Nuhn, H.
- Anton, E. See Braun, J. von.
- Antoniani, C., composition of strychnine phosphomolybdate, A., 1265.
- behaviour of arsenic acid in regard to the absorbing power of soil, B., 63.
- influence of superphosphate on the reaction of the soil, B., 206.
- Antoniani, C., and Jona, R. B., microchemical determination of phosphoric acid as strychnine phosphomolybdate, A., 979.
- Antonov, G. N., surface tension of rock salt, A., 11.
- molecular structure of liquids and solids, A., 593.
- physical properties of liquids as functions of the temperature, A., 1084.
- Antonov, G. N., and Adam, M. A., electric battery of the Leclanché type, (P.), B., 864*.
- Antropoff, A. von, limits of the periodic system, A., 104.
- Anurov, B. See Dobrjanski, A.
- Anziani, P. See Vavon, G.
- Aoki, M., production of alcohol in the animal body. IV. Influence of adrenaline on the amount of blood-alcohol, A., 799.
- production of alcohol in the animal body. III. Influence of insulin on the amount of physiological alcohol in the blood of animals, A., 925.
- Apard, A., metallic complexes of cellulose nitrates, A., 276, 873*.
- Apchie, A. See Vavon, G.
- Apeldorn, G. S., water-softening system, (P.), B., 214.
- Apex (British) Artificial Silk, Ltd. See Levy, L. A.
- Apollonov, A. See Prikladovizky, S.
- Apollo, N. A. See Postovski, I. J.
- Appareils et Evaporateurs Kestner, facilitating the removal of a substance solidified or condensed on cooling drums, (P.), B., 175.
- production of nitrate of lime, (P.), B., 230, 446.
- Appel, R., electrolytic separation of metallic chromium for the preparation of chromium coatings on other metals, (P.), B., 97.
- Appleby, E. G. See Bentley, G. H.
- Applegate, R., and Ohio Brass Co., process of welding, (P.), B., 413.
- Appleman, C. O., and Conrad, C. M., pectic constituents of tomatoes and their relation to the canned product, B., 586.
- Appleman, C. O., Loomis, W. E., Phillips, T. G., Tottingham, W. E., and Willaman, J. J., analysis of plant tissues, A., 334.
- determination of soluble carbohydrates, A., 1292.
- determination of nitrogen in relatively simple compounds, A., 1292.
- Appleyard, E. T. S. See Skinner, H. W. B.
- Apthorpe, W. H., and Hedges, J. J., automatic humidity control, B., 111.
- Arakawa, S. See Itano, A.
- Arapov, N. N., hydraulic method for determining feed molasses, B., 541.
- Arauner, E. See Panly, H.
- Arbeiter, R., determination of dust and ash [fixed carbon] in tar, B., 591.

- Arbuckle, H. B., and Thies, O. J., *jun.*, variation of the protein content of maize. V., A., 95.
zinc spot in the Marsh test, A., 724.
- Arbusov, A. E., molecular volumes of liquids at their b.p., A., 107.
- Arbusov, B., resin from *Pinus silvestris*. II. Solid constituents, B., 680.
- Arbusov, D. See Shnraevliev, D.
- Arbusov, G., resistance of leathers to hydrolysis, B., 828.
- Archbold, H. K., physiology of apples. VIII. Methods of determining the dry weight of apple pulp, A., 558.
physiology of apples. IX. Chemical composition of mature and developing apples and its relationship to environment and to the rate of chemical change in store, A., 801.
- Archbutt, S. L., magnesium and its alloys. I. and II., B., 57.
- Archbutt, S. L., Grogan, J. D., and Jenkin, J. W., properties and production of aluminium alloy die-castings, B., 755.
- Archer, R. S., and Aluminum Co. of America, aluminium-base alloy, (P.), B., 305.
- Archer, R. S., and Fink, W. L., aluminium-beryllium alloys, A., 842.
- Archer, R. S., Kempf, L. W., and Hobbs, D. B., heat treatment of aluminium-silicon alloys, B., 126.
- Arend, G. See Schönborg, A.
- Arends, B. See Ley, H.
- Arens, H., and Eggert, John, characteristic surface of photographic films, A., 255.
spectrum temperature of magnesium- and flash-light, A., 1295.
- Arentz, T., digesters for use in the whale oil industry, (P.), B., 237.
- Argabrite, G. M. See Drying Systems, Inc.
- Argent, J. B. See Achille Serre, Ltd.
- Argent, J. T., and Adams-Hydraulics, Ltd., rotary liquid distributors, (P.), B., 697.
- Arii, K., vapour pressures of the heptahydrate and the saturated solution of sodium sulphate, A., 1190.
- Aristova, T. See Sokolov, P.
- Ariyama, N., glyoxals; formation of methylglyoxal from hexose-phosphate in presence of living tissues, A., 796.
- Arizona Minerals Corporation. See Lindsay, F. K.
- Ark, H., oxidation of certain aliphatic and aromatic carbon compounds by dichromate, A., 269.
- Arkel, A. E. van, polarisation of ions in a crystal lattice, A., 1312.
- Arkel, A. E. van, and Burgers, W. G., broadening of the Debye-Scherrer lines of cold-worked tungsten wires and strips as a function of the temperature and duration of heating, A., 819.
- Arkel, A. E. van, and De Boer, J. H., electrostatic explanation of complex formation, A., 690.
separation of hafnium and zirconium, (P.), B., 367*.
- Arkel, A. E. van, De Boer, J. H., and Naamloze Vennootschap Philips' Gloeilampenfabrieken, precipitation of metals on an incandescent body, (P.), B., 529*.
- Arnell, B., chewing gum, (P.), B., 729.
- Arkhangelski, B. T. See Nametkin, S. S.
- Arkush, A. S. See Proeschner, F.
- Armaeost, W. H. See Superheater Co.
- Armour, R. W. See Eason, L. H.
- Armour & Co. See Powell, J. R.
- Armour Fertilizer Works. See Meyers, H. H.
- Armstrong, H. C., and Nordenson, T., measurement of steam flow in works practice, B., 215.
- Armstrong, K. C., turbidity and coagulant dosage [of river water], B., 350.
- Armstrong, P. A. E., ferrous alloy, (P.), B., 863.
- Armstrong, W. D. See Poth, E. J.
- Armstrong, W. G. See Thompson, M. de K.
- Armstrong Cork Co., manufacture of artificial cork, (P.), B., 11.
manufacturing floor covering, etc., (P.), B., 866.
- Arnal, V. See Rius, A.
- Arnd, P. See Tacke, B.
- Arnd, T., and Hoffmann, W., determination of reaction of peat soils, B., 279.
- Arndt, F., tautomerism of *o*-nitrobenzaldehyde, A., 759.
- Arndt, F., and Amende, J., syntheses with diazomethane. V. Action of acid chlorides with diazomethane, A., 759.
- Arndt, F., and Eistert, B., transformation of phenylated azodicarboxylamides into benzotriazines, A., 158.
syntheses with diazomethane. IV. Reaction between aldehydes and diazomethane, A., 739.
- Arndt, F., Eistert, B., and Amende, J., syntheses with diazomethane, A., 1240.
- Arndt, F., Eistert, B., and Partale, W., syntheses with diazomethane. III. *o*-Nitrophenylethylene oxide and the compounds derived therefrom, A., 752.
- Arndt, F., and Lorenz, L., [behaviour of dixanthylene when heated], A., 647.
- Arndt, K., and Ploetz, G., density of molten magnesium, A., 115.
- Arnfeld, H., constitution of the iron-tungsten and iron-molybdenum alloys, A., 1190.
- Arnfeld, H. See also Runqvist, A.
- Arnold, A. A. See Metallisation, Ltd.
- Arnold, C. See Standard Oil Development Co.
- Arnold, G., impermanence of many coal-tar colours to lime and zinc white [in paints], B., 936.
- Arnold, H. See Heller, G.
- Arnold, L., hydrogen-ion concentration of the gastro-intestinal tract and its relation to chemical bacteriology, A., 798.
- Arnold Print Works, De Göncz, D., and Jones, A. S., treatment of cellulosic fabrics, (P.), B., 565*.
- Arnold Print Works. See also De Göncz, D.
- Arnoldi, W., and Hiraoka, T., respiration of the frog's heart. II. Influence of acid and alkali on the oxygen consumption of the surviving frog's heart, A., 442.
- Arnot, R., production of resinous media, (P.), B., 532.
- Arnoutovitch-d'Albany, D. See Groleas, F.
- Arnovljevitch, V. See Chahovitch, X.
- Aron, P. D., utilisation of [recovery of plasticising and softening agents from] cellulose acetate waste, (P.), B., 121.
- Arrhenius, O., optimum soil reaction of the sugar-beet, B., 239.
- Arrhenius, O., and Riehm, H., analysis by sedimentation, A., 1105.
- Arsem, W. C., and Commercial Solvents Corporation, production of formaldehyde, (P.), B., 117.
- Arsem, W. C., and Industrial Technics Corporation, laevulose from purified dahlia juice; laevulose from soluble non-sugar carbohydrates of the dahlia, (P.), B., 652.
- Arsenjeva, A., influence of electric fields on the absorption spectrum of ruby, A., 458.
- Artner, T. von, production of [catalytic] platinum contact bodies, (P.), B., 452*.
- Artom, C., formation of ammonia from cyanic acid, A., 193.
- Artundo, A., glycaemia, glycogen, and insulin action with decapulated rats, A., 205.
- Arventiev, B. See Gheorghiu, C. V.
- Arvin, J. A., and Adams, R., Δ^2 -cyclopentenylalkylacetic acids and their bactericidal action towards *B. leprae*. IX., A., 61.
 β - Δ^2 -cyclopentenylethyl-alkylacetic acids and their bactericidal action towards *B. leprae*. XII., A., 1003.
cyclopropylmethyl-alkylacetic acids and their bactericidal action towards *B. leprae*. XIII., A., 1003.
- Arzooonian, S., plasticity measurements on milk of magnesia, B., 522.
- Asada, I., life period of excited mercury atom, A., 1303.
- Asada, T., Ladenburg, R., and Tietze, W., measurement of the life period of metastable mercury atoms, A., 1065.
- Asahi Gasatsu Kabushiki Kaisha. See Kamita, K.
- Asahina, T., and Dono, T., anhydrides of amino-acids. I. Molecular compounds of diketopiperazine with copper halides, A., 1025.
- Asahina, T. See also Shibata, Y.
- Asahina, Y., and Ihara, S., synthesis of 3:5-dihydroxyethylbenzene, A., 633.
- Asahina, Y., and Inubuse, M., flavanone glucosides. II. Constitution of naringenin, A., 1020.
flavanone glucosides. III. Reduction of flavone and flavanone derivatives, A., 1256.
- Asahina, Y., and Ishidate, M., campherol, A., 526.
- Asahina, Y., and Nakanishi, S., kessyl alcohol. IV., A., 616.
- Asahina, Y., and Ohta, T., synthesis of evodiamine, A., 432, 653.
- Asai, M. See Matsui, M.
- Asakura, T., changes in blood after parenteral administration of foreign proteins, A., 83.
- Asch, A. J., electric furnace, (P.), B., 415.
- Aschan, O., products of the addition of chlorine and bromine to pinene and their de-chlorination, A., 296.
genetic relationships in the sylvestrene group, A., 625.
[addition of chlorine and bromine to pinene], A., 893.
cymene produced in the sulphite-cellulose process, B., 888.
- Aschmarin, P., and Martinson, E., acid-base relationships in the organism; observations on a human case after removal of the stomach, A., 1396.

- Ascoli, R., condition of the uric acid in urine, A., 542.
urinary colloids and crystalloids as solvents for uric acid, A., 1394.
- Ashcroft, E. A., metallurgy of ores or materials containing tin and extraction of metals or metal products therefrom, (P.), B., 789.
recovery of tin from cassiterite, (P.), B., 899.
- Ashcroft, E. A., and New Metallurgy, Ltd., protection of carbon or graphite electrodes in fused electrolytes, (P.), B., 130*.
- Asher, L., and Honda, T., physiology of glands. CXIV. Exchange of material between blood and tissues in [animals with] normal and denervated thyroid glands, A., 1274.
- Asher, L., and Kojima, Y., physiology of glands. CXV. Prevention of over-compensation for loss of iron, through blockade of the reticulo-endothelial system, after extirpation of the spleen, A., 1274.
- Ashizawa, C. See Shinoda, R.
- Ashley, J. N., and Robinson, R., 3:4:5:6-tetrahydro-4-carboline, A., 775.
- Ashmann, F. F. See McMaster, L.
- Ashworth, F., and Burkhardt, N., effects induced by the phenyl group. I. Addition of polar reagents to styrene and the behaviour of the halogenated benzenes, A., 994.
- Ashworth, J. R., relation of specific heat to ferromagnetism, A., 351.
- Asiatic Petroleum Co., Ltd., and Egerton, A. C., prevention of pinking or knocking in internal-combustion engines, (P.), B., 292.
- Asiatic Petroleum Co., Ltd., and Parker, A. H., apparatus for use in extinguishing burning oil in tanks, (P.), B., 807.
- Asimov, G. See Zavadovski, B.
- Askenasy, P., and Elöd, E., production of arsenic acid and its solutions, (P.), B., 52*.
- Askenasy, P., Elöd, E., and Trogus, C., oxidation reactions. II. Oxidation of toluene with nitric acid and oxides of nitrogen in presence of oxygen, A., 746.
- Askenasy, P., and Mohrschulz, W., decomposition of chromium ores with acids, (P.), B., 575.
- Askenasy, P., and Rose, R., conversion of barium carbonate into barium oxide, (P.), B., 51, 815.
- Askenasy, P. See also Goldschmidt, S.
- Asp, E. T. See Canadian General Electric Co., Ltd.
- Asphalt Cold Mix, Ltd., Levy, F., and Gabriel, L. G., bituminous emulsions, (P.), B., 633.
- Asser, E., production of permanent paste containing red oxide of lead (minium), (P.), B., 719.
- Associated Lead Manufacturers, Ltd. See Waring, H.
- Associated Oil Co., production of insecticides, (P.), B., 382.
- Associated Oil Co. See also Bell, A. F. L., and Ihrig, H. K.
- Association Parisienne pour l'Industrie Chimique, Desparmet, E., and Schmitt, F., weighting of leather and production of a glossy surface thereon, (P.), B., 134.
- Association Parisienne pour l'Industrie Chimique. See also Desparmet, E.
- Astanin, P., Kriwsky, I., and Rubel, W., regulation of the metabolism of the liver by the nervous system. I., A., 669.
- Astanin, P., and Rubel, W., regulation of the metabolism of the liver by the nervous system. II. Influence of the vegetative nervous system on the carbamide and sugar formation in the liver, A., 669.
- Aston, F. W., constitution of germanium, A., 932.
constitution of zinc, A., 1069.
- Aston, G. H. See Ellis, C. D.
- Aston, J. G. See Conant, J. B.
- Astrand, H., and Westgren, A., X-ray analysis of silver-cadmium alloys, A., 1175.
- Aszödi, Z., glycolysis. II. Glycolysis in the blood of diabetic (depancreatized) dogs, A., 321.
- Atanasiu, I. A., preparation of Th(OH) from the solution of a salt as function of the hydrogen-ion concentration, A., 141.
electrochemical oxidation of solutions of cerous salts, A., 719.
electrometric titration of the nitrite ion with potassium permanganate, A., 724.
cerium salts as oxidising agents in electrometric titrations, A., 724.
electrometric titration of lanthanum, cerium, and thorium as ferrocyanides, A., 726.
electrometric titration of uranyl ion with potassium ferrocyanide, A., 727.
- Atanasiu, I. A., and Stefavesen, V., cerium salts as oxidising agents in electrometric titrations. II., A., 860.
- Atchley, D. W., and Benedict, E. M., distribution of electrolytes in intestinal obstruction, A., 196.
- Ateliers J. Hanrez, centrifugal dust separators, (P.), B., 553.
- Ateliers J. Hanrez Société Anonyme and Modave, A., apparatus for the removal of dust from gases, (P.), B., 145.
- Aten, A. H. W., electro-osmotic purification of water, B., 626.
- Aten, A. H. W., Ginneken, P. J. H. van, and Verwey, E., saturation of sugar-lime solutions. II., A., 21.
- Athanasiu, G., Becquerel effect, A., 597.
- Atkins, E. A., and Rylands Bros., Ltd., galvanising or coating by dipping of steel, (P.), B., 372.
- Atkins, W. R. G., seasonal variations in the phosphate and silicate content of sea-water during 1926 and 1927 in relation to the phytoplankton crop, A., 389.
lecture experiments on the hydrogen-ion concentration changes in the rusting of iron, A., 502.
preservation of fishing nets by treatment with copper soaps and other substances, B., 255.
- Atkinson, F. C., material for commutator brushes, (P.), B., 129.
- Atkinson, H., recovery of petroleum from oil-bearing sands, (P.), B., 779*.
fatty acids of Egyptian butter fats, B., 864.
- Atkinson, H., and Azadian, A., coconut oil in butter, B., 208.
- Atkinson, H., Holmestead, F. K., and Adams, J. B., recovery of petroleum from oil-bearing sands, (P.), B., 45.
- Atkinson, J. S., and Open Hearth Combustion Co., reversible regenerative furnace, (P.), B., 590*.
- Atkinson, R. d'E., statistical experiments on the motion of electrons in gases, A., 809.
recombination of positive ions with electrons, A., 1301.
- Atlantic Refining Co. See Delbridge, T. G., Hill, J. B., Lewis, J. W., jun., and Smith, L. B.
- Atlas Portland Cement Co. See Croll, A. G.
- Atlas Powder Co. See Creighton, H. J., Pratt, C. D., and Shipley, S. D.
- Atmospheric Nitrogen Corporation. See Heissler, H. E., Kniskern, W. H., Schultze, W., and Slade, R. E.
- Atsuki, K., cellulose xanthate and viscose. I. Reactions involved in the ripening of viscose, B., 256.
cellulose acetate and its solutions. II. Stability of cellulose acetate, B., 519.
- Atsuki, K., and Ishiware, M., esterification of cellulose and cellulose esters. I. Velocity of nitration of cotton fibre. II. Decrease in viscosity of cellulose nitrate with duration of nitration, B., 809.
- Atsuki, K., Okamura, I., and Matsuda, T., cellulose xanthate and viscose. II. Changes of the colloidal nature of viscose with the concentration of free alkali, B., 256.
- Atsuki, K., and Shinoda, R., cellulose acetate and its solutions. I. Composition of cellulose acetate lacquer for aeroplane dope, B., 519.
cellulose acetate and its solutions. IV. Acetylation of cellulose. V. Relation of temperature and time of ripening to viscosity of cellulose acetate, B., 519.
- Atsuki, K., Takagi, T., and Ohta, T., change of plasticity of viscose with ripening, B., 186.
- Atsuki, K. See also Tanaka, Y.
- Atwater Kent Manufacturing Co. See Buchholz, R. F.
- Atwell, H. V., extraction of fats, (P.), B., 23.
- Atwell, H. V. See also Wilson, R. E.
- Atwood, F. O., and American Protein Corporation, production of protein products, (P.), B., 728.
- Aubel and Bourguet, M., conversion of pyruvic acid into alanine, A., 868.
- Aubel, F., and Genevois, L., oxidation of levulose in absence of oxygen, A., 620.
- Aubert, M., Dumanois, P., and Pignot, A., effects of antidetonants in the vapour phase, A., 715.
- Aubert, M., Pignot, A., and Villey, J., action of antidetonators on the adiabatic inflammability of hydrocarbons, B., 5.
- Aubertot, V. See Mougeot, A.
- Audibert, E., and Raineau, A., synthesis of methanol [methyl alcohol], B., 920.
- Audubert, R., and Lejeune, G., the two coagulations of [rubber] latex, B., 203.
- Auer, L., coagulation or peptisation of products containing unsaturated carbon compounds, (P.), B., 398.
- Auerbach, E. B. See Akt.-Ges. für Kohlensäure-Ind.
- Auerbach, R., electrostatically charged limiting surfaces, A., 120.
- Auerbach, R. See also Ostwald, Wolfgang.

- Auerbachówna, S. See Weil, S.
 Aufrecht, reducing power of urine, A., 914.
 Augem, A. See Colin, H.
 Auger, P., directions of emission of photo-electrons, A., 453.
 distribution in space of the initial directions of photo-electrons produced by monochromatic X-rays, A., 1298.
 Anger, V., and Yakimach, A., phosphates and arsenates of quadri-valent manganese, A., 1200.
 Augsberger, A., ultrafiltration, A., 1064.
 Augsbury, F. A. See Richter, A. F.
 Auguste, C., chlorides and nitrogenous substances in the duodenal fluid in uræmia, H., 667.
 Auguste-Victoria-Apotheke Rehwald & Weiss, and Ohle, H., preparation of water-soluble, easily hydrolysed benzyl derivatives, (P.), B., 36.
 Auld, S. J. M., development problems in exploitation of natural gas, B., 511.
 Aulich, W. See Meyer, Julius.
 Auméras, M., solubility of cadmium sulphide in hydrochloric acid, A., 711.
 ionisation of solutions of hydrogen sulphide, A., 840.
 ionisation of hydrofluoric acid solutions, A., 954.
 Auméras, M. See also Gay, L.
 Aurén, T. E., absolute intensity of X-rays, A., 1078.
 Aurig, M., and Brücklmayr, G., treatment of gases for removal of hydrogen sulphide and carbon dioxide, (P.), B., 663.
 Auriol, R. F. See Le Guyon, R. F.
 Auscher, S. E., [porcelain] insulators, (P.), B., 928.
 Auspitzer, O., new colloid mill, B., 505.
 Austerweil, G., hydration of nopinene. IV. Comparison of terpene alcohols obtained by hydration of nopinene and pinene, A., 69.
 manufacture of terpin [hydrate] from nopinene, (P.), B., 874.
 Austerweil, G. See also Peuffaillit, L.
 Austin, J. B., equilibrium pressure over co-existing salt hydrates at temperatures below 0°, A., 366.
 Austin, P. C., rotatory dispersion of derivatives of tartaric acid. III. Diacetyltartaric acid and its esters, A., 991.
 rotatory dispersion of derivatives of tartaric acid. IV. Propyl and butyl tartrates, A., 991.
 Austin, W. See Bailey, F. T.
 Austin, W. E. See Stein, H.
 Australian Bituminous Compounds, Ltd., composition for use in substitution for asphalt and bituminous materials and for electrical insulation, (P.), B., 560.
 Australian Bituminous Compounds, Ltd. See also Renou, F. G.
 Autié, G., volumetric determination of cerium, A., 38.
 Auwers, K. von, valency and refraction equivalents, A., 688.
 Auwers, K. von [with Bahr, T., Wegener, G., and Wiegand, C.], alkylations, A., 426.
 Auwers, K. von [with Mauss, W.], Fries' transformation, A., 407.
 Auwers, K. von, and Dersch, F., ease of wandering and strength of attachment of organic radicals in transformations of alkylated hydroxypyrazolines, A., 900.
 Auwers, K. von, and Düsterdiek, H., determination of valency requirements of alkyl groups, A., 305.
 Auwers, K. von, Düsterdiek, H., and Kleiner, H., tenacity of organic radicals towards nitrogen, A., 306.
 Auwers, K. von, and Heimke, P., spectrochemical observations on azo-compounds, A., 688.
 spectrochemistry and constitution of azoxy-compounds, A., 688.
 Auwers, K. von, and Kleiner, H., indazole derivatives, A., 306.
 Auwers, K. von, and Mauss, H., reactions of hydrazines with hydroxymethylene-ketones and their derivatives. II., A., 186.
 wandering of alkyl groups in the Fries transformation, A., 417.
 benzoylmethylcarbinol and acetylphenylcarbinol. II., A., 419.
 reactions of Friedel and Crafts, Fries, and Gattermann, A., 998.
 mechanism of the Fries transformation, A., 1013.
 Auwers, O. von, magnetic analysis, A., 114.
 Auzy, P., extraction of oil from oily waste, oil filters, etc., (P.), B., 274.
 Avanzi, M., treating fish, animal, or vegetable products, (P.), B., 729.
 Avdalian, D., rhythmic formation of precipitates in gels, A., 1187.
 Avellone, L., action of bile on the tributyrinolytic power of blood-serum, A., 328.
 Averseng, G., production of sterilised and stable vegetable bristle or fibre, (P.), B., 257.
 Averseng, J. See Aloy, J.
 Avery, J. W. See Smithells, C. J.
 Avery, O. T. See Goebel, W. F.
 Avery, S., apparatus for determining m. p., A., 863.
 action of sodium benzyl cyanide with cinnamic ester. II., A., 1243.
 Avogadro, L., dioximes. XLVII., A., 637.
 Avtonomova, E. S. See Maximovitch, S. M.
 Awschalom, M., cortex of *Iodina rhombifolia* (Hook et Arn.), Reiss, A., 560.
 Axtell, F. C., and Axtell Research Laboratories, Inc., removal of sulphur from petroleum, (P.), B., 116.
 refining petroleum fractions, (P.), B., 664.
 Axtell Research Laboratories, Inc. See also Axtell, F. C.
 Ayling, E. E. See Hinkel, L. E.
 Aymar, G. See Corbellini, A.
 Aymareto, (Signa.) M., dioximes. XLIV., A., 47.
 Ayyar, C. V. R., Perumal, T. S. S., and Norris, R. V., oxidation of sulphur in suspensions of activated sludge and its influence on the solubilisation of mineral phosphates, B., 938.
 Azadian, A., Barbary figs, B., 34.
 Azadian, A. See also Atkinson, H.
 Azami, K. See Kita, G.
 Azimonti, C. See Charrier, G.
 Aziz, M. A. See Holde, D.
 Azzopardi, J., manufacture of printing inks, (P.), B., 681.

B.

- Baars, P., pseudo-electrolytes; condition of ammonia in aqueous solution, A., 128.
 Baba, H. See Horiba, S.
 Babad, S. See Abel, E.
 Babasinian, V. S., nitro- and dinitro-thiophens, A., 1378.
 Babbitt, B. J., permeameter for testing magnet steel, B., 716.
 Babcock, H. D., photography of the infra-red solar spectrum, A., 680.
 secondary standards of wave-length; interferometer measurements of iron and neon lines, A., 680.
 effect of pressure on the spectrum of the iron arc, A., 1166.
 Babcock & Wilcox Co., [nozzle for] spraying liquids, (P.), B., 288.
 Babcock & Wilcox Co. See also Jacobus, D. S.
 Babet, V., crystallophyllian rocks of Mayombe (French equatorial Africa), A., 1111.
 Babkin, M. P., composition of Camembert cheese at various stages of ripening, B., 386.
 Babor, J. A. See Stevenson, R.
 Baborovský, J., and Velišek, J., electro-osmosis and electrolytic transport of water in solutions of alkali chlorides, A., 833.
 Baborovský, J., Velišek, J., and Wagner, Alois, absolute hydration of the hydrogen, lithium, sodium, potassium, chlorine, and bromine ions in normal solutions, A., 954.
 Baborovský, J., and Wagner, Alois, electrolytic transference of water in aqueous hydrogen bromide solutions, A., 244.
 Bach, A. N., Oparin, A. I., and Vener, R. A., quantitative variations of enzymes in grains of wheat in the course of ripening, resting, and germinating, A., 1060.
 Bach, D., nitrogen nutrition of moulds; assimilation of urea-nitrogen, A., 208.
 determination of the isoelectric point of amino-acids, asparagine, or glycine, A., 436.
 Bach, E. See Dilthey, W.
 Bach, R., electrical conductivity of crystalline zinc oxide, A., 226.
 Bacharach, A. L., and Allchorne, E., vitamin-B content of malt extract, A., 555.
 Bacharach, A. L. See also Jephcott, H.
 Bachér, F., synthesis of a truxinic acid, A., 521.
 Bachmann, E. J. See Ledru, M. J. L.
 Bachmann, W. See Karplus, H.
 Bachmann, Wilhelm, and Maier, L., determination of the value of adsorbents, A., 119.
 Bachmann, W. E. See Gomberg, M.
 Bach-Nikolajeva, N., preparation of sodium formaldehydesulphoxylate, A., 393.
 Bach-Nikolajeva, N., and Frumkin, A., dependence of the stability of carbon suspensions on the gas charge and the composition of the solution, A., 1321.

- Back, E., and Goudsmit, S., nuclear moment and Zeeman effect for bismuth, A., 340.
- Backer, C. B., manufacture of fireproof electric insulated cables, (P.), B., 98.
- Backer, E. See Feigl, F.
- Backer, H. J., solubility of the barium salts of α -sulphocarboxylic acids, A., 12.
- simple compounds containing asymmetric carbon, A., 153.
- nitroamides of methonic [methanedisulphonic] acid, A., 1214.
- Backer, H. J., and Buining, J., sulphomethylsuccinic acids. I., A., 46.
- sulphopyrotartaric acids. II., A., 273.
- Backer, H. J., and Mook, H. W., resolution of bromosulphoacetic acid, A., 508.
- α -chloro- and α -bromo- α -sulphopropionic acids and their resolution, A., 739.
- resolution of racemic chlorobromoacetic acid, A., 1114.
- Backer, H. J., and Mulder, C. H. K., optically active α -arsenocarboxylic acids, A., 1117.
- Backer, H. J., and Schurink, H. B. J., optical resolution of a spirocyclic compound of the allene type, A., 1134.
- Backer, H. J., and Zanden, J. M. van der, disulphosuccinic acid, A., 809.
- Backes, P. See Pfeiffer, P.
- Backlund, N. O., and Bergedorfer Eisenwerk Aktien-Gesellschaft, separating from fluid hydrocarbons other hydrocarbons which precipitate at low temperature, (P.), B., 595*.
- Backus, G. S., and Oliver Continuous Filter Co., vacuum-filter liquid guard, (P.), B., 248.
- Bacon, F. S., determination of unsaturateds in lubricating oils, B., 777.
- Bacon, M. L., curing or preservation of meat, bacon, hams, tongues, and other food materials, (P.), B., 545.
- Bacon, N., vulcanisation of rubber, B., 532.
- Bacon, R. F., recovery of sulphur from iron sulphides, (P.), B., 604.
- Bacon, R. F. See also Frieden, A.
- Bacon, T. S. See Frolich, P. K.
- Baddiley, J. See British Dyestuffs Corporation, Ltd.
- Badenheuer, F., influence of the mould and the degree of de-oxidation on the crystallisation of [steel] ingots cooled without disturbance, B., 674.
- Bader, G. See Hieber, W.
- Bader, J. See Lüers, H.
- Bader, W. See British Celanese, Ltd.
- Bader, W. B. See Mead, B.
- Badger, R. M., pure rotation spectrum of ammonia, A., 687.
- Badische Anilin- & Soda-Fabrik. See I. G. Farbenind. A.-G.
- Badoche, M., ethylenic isomerism of the phenyl β -p-tolylstyryl ketones, A., 522.
- Badoeche, M. See also Mouren, C.
- Badollet, M. S., and Paine, H. S., clarification of starch conversion liquors in manufacture of corn sugar and corn syrup, B., 30.
- Badzynski, W. See Smoleński, K.
- Baechler, Kiser & Cie., vertical drying apparatus, (P.), B., 696.
- Bäcker, E. See Feigl, F.
- Bäckström, H. L. J., mechanism of inhibition in autoxidation reactions, A., 1335.
- Bäckström, S. A. See Hall, N. F.
- Bähr, H., simultaneous removal of ammonia and sulphur compounds from carbonisation gas, B., 354.
- Bähr, H. See also I. G. Farbenind. A.-G.
- Bähr, K. See Ziegler, K.
- Baernstein, H. D., conductivity method and proteolysis. II. Interpretation of conductivity changes, A., 1054.
- Baesler, E. See Skita, A.
- Baganz, G., automatic colorimeter, A., 862.
- Bagasse Products Corporation. See De la Roza, J. J.
- Bagchi, R. C. See Chowdhury, J. K.
- Baggesgaard-Rasmussen, H., and Christensen, C. E., use of sodium borate instead of sodium hydroxide in the titration of weak bases, A., 143.
- Baggesgaard-Rasmussen, H., Jackerott, K. A., and Schou, S. A., determination of bismuth in urine, A., 440*.
- Baggesgaard-Rasmussen, H., and Schou, S. A., determination of morphine in aqueous solution, B., 836.
- Bagguley, W. W. See Hickton, R.
- Baghdasarian, A. B., extraction of metals from metallic sulphides; extraction of metallic nickel, (P.), B., 609.
- Bagley, G. D., and Kemet Laboratories Co., Inc., electric vacuum furnaces, (P.), B., 577.
- Baglioni, S., and Settimj, L., nutritive value of the nitrogenous substances obtained from certain kinds of preserved foods; experimental researches on white rats, B., 209.
- Bagnall, A. M. See Bagnall, E. J.
- Bagnall, E. J., Bagnall, A. M., and Knox Terpezone Co., Inc., apparatus for production of gaseous ozonides, (P.), B., 483.
- Bagsar. See Baghdasarian.
- Bagster, L. S., reaction between nitrous acid and halogen sulphide, A., 1342.
- Bahl, A. See Küster, W.
- Bahr, N. A., and Bahr, T., fission of carbon monoxide by nickel, A., 1336.
- Bahr, T. See Auwers, K. von, and Bahr, N. A.
- Baier, E., crystallography of dicyauidiamide, A., 695.
- Baier, G., and Hammer, A., high-speed [wet colloid] grinding mills, (P.), B., 551.
- Bailey, C. H. See Bracken, A. F., Cairns, A., and Stephens, E. L.
- Bailey, C. R., and Lih, K. H., infra-red emission of carbon dioxide, A., 687.
- Bailey, F. J. See Evans, E. C.
- Bailey, F. T., and Austin, W., production of white lead, (P.), B., 866.
- Bailey, G. L., influence of dissolved gases on the soundness of 70 : 30 brass ingots, B., 370.
- Bailey, H. S. See Blount, A. L.
- Bailey, J., and Wadsworth, W. H., machine for dyeing or similarly treating fabrics with liquids, (P.), B., 332.
- Bailey, J. N., and Metropolitan Vickers Electrical Co., Ltd., apparatus for carbonising pulverised fuel, (P.), B., 662.
- Bailey, J. R. See Poth, E. J., and Whyburn, G. T.
- Bailey, K. C., inhibition of esterification by pyridine, A., 718.
- Bailey, R. W., and Westinghouse Electric & Manufacturing Co., treatment of steam to reduce or prevent corrosion, (P.), B., 508*.
- Baillet, A. E., Coplan, Archibald Harold, and Coplan, Archibald Hyman, cupola, (P.), B., 756.
- Baily, E. W. See Noel, F. A. G.
- Baily, T. F., shaft-type electric furnace, (P.), B., 645.
- Bain, J. W., system potassium carbonate-sodium carbonate-water at 40°; trihydrate of sodium carbonate, A., 20.
- Bain, J. W. See also Smith, E. A.
- Bain, R. See Fenton, J.
- Bainbridge, E. G. See British Dyestuffs Corporation, Ltd.
- Baines, H., determination of iodide in mixtures of halides, B., 190.
- detection of traces of soluble bromides, B., 261.
- Baird, D., and Nichols Copper Co., roasting furnace, (P.), B., 526.
- [multiple-hearth] furnace construction and operation, (P.), B., 574.
- Baird, W. See Wilson, F. J.
- Bakelite Corporation, condensation products from dihydroxy-diphenylethane and their manufacture, (P.), B., 762.
- phenol resin compositions, (P.), B., 792.
- Bakelite Corporation. See also Bender, H. L., Schmidt, J. H., Schrimpe, C. F., and Turkington, V. H.
- Bakelite Ges.m.b.H. See Seebach, F.
- Baker, E. A., variation of intensity ratios of optically excited spectrum lines with the intensity of the exciting light, A., 100.
- law of blackening of the photographic plate at low densities, B., 944.
- Baker, E. M., and Pettibone, E. E., steel anodes for chromium plating, B., 823.
- Baker, E. M., and Rente, A. M., porosity of electrodeposited chromium, B., 819.
- Baker, E. M. See also Leslie, E. H., and Upthegrove, C.
- Baker, G. L. See Myers, P. B.
- Baker, H. B., change of properties of substances on drying, A., 10, 354.
- Baker, J. W., mechanism of tautomeric interchange and the effect of structure on mobility and equilibrium. II. Ring-chain tautomerism in its relation to the mutarotation of the sugars, A., 870.
- mechanism of tautomeric interchange and the effect of structure on mobility and equilibrium. III. Function of alkaline and acid catalysts in the mutarotation of derivatives of tetramethylglucose, A., 967.
- Baker, J. W., Cooper, K. E., and Ingold, C. K., alternating effect in carbon chains. XXIV. Directive action in aromatic substitution of certain groups containing triple linkings, A., 403.

- Baker, J. W. See also Ingold, C. K.
 Baker, L. C., 4-bromophthalic acid, A., 1374.
 Baker, L. C. See also Brady, O. L., and Marrian, G. F.
 Baker, R. H. See Brinley, F. J.
 Baker, S. G., *jun.* See Johnson, N. G.
 Baker, W., 7-hydroxy-3-phenyleoumarin, A., 70.
 constitution of irigenin and iridin. I., A., 646.
 Baker, W. See also Lapworth, A.
 Baker, W. E. B., treatment of sulphite-wood-pulp liquor, (P.), B., 889.
 Baker, W. H., machines for separating coal and for other analogous purposes, (P.), B., 292.
 Baker Perkins, Ltd., Harber, L. S., and Pointon, J. E., kneading, mixing, and like machines [for bread, confectionery, etc.], (P.), B., 835.
 [whisking] machines for mixing, aerating, and like treatment of various materials [e.g., cakes, confectionery], (P.), B., 916.
 Baker Perkins, Ltd., Prescott, W. E., Bunce, J. P., and Anciens Établissements A. Savy Jeanjean & Cie. Société Anonyme, apparatus for treating chocolate, (P.), B., 209.
 Baker Perkins, Ltd. See also Head, R., and Prescott, W. E.
 Bakes, W. E. See Thaysen, A. C.
 Balaban, I. E., synthesis of 4-amino-3-hydroxyphenylarsinic acid, A., 655.
 Balaban, I. E., and King, H., trypanocidal action and chemical constitution. VII. *s*-Carbamides and arylamides of naphthylamine-di- and -tri-sulphonic acids, with observations on the mesomorphic state, A., 164.
 Balabucha-Popzowa. See Schmuck, A.
 Balachowsky, D., and Caire, P., production of a combustible charge for use in an internal-combustion engine, (P.), B., 471.
 Balanda, D. V. See Otryganiev, A. V.
 Balányi, D. See Stiasny, E.
 Balarev, D., new kinds of mixed crystals. VII. and VIII., A., 223, 356.
 origin of the error in the precipitation of barium sulphate, A., 264.
 protein reactions of various metaphosphates, A., 724.
 Balarev, D. [with Kaischev, R.], new kinds of mixed crystals. V., A., 7.
 Balarev, D. [with Kaischev, R., and Kratschev, G.], new kinds of mixed crystals. VI., A., 110.
 Balaš, F., and Kosik, A., catalytic reduction of hydroxybenzoic acids, A., 1005.
 Balaš, F. See also Ruzicka, L.
 Balasse, G., continuous emission spectra produced by electrodeless discharge, A., 214, 805.
 Balcar, F. R., and Stegeman, G., adsorption and dissolution phenomena encountered in precipitations, A., 1183.
 Balch, R. T., and Paine, H. S., factory operation of automatic electrometric p_H control of cane juice defecation, B., 461.
 Baldsiefen, W. D., Rogers, T. H., and Du Pont de Nemours & Co., E. I., oil composition and retardation of development of rancidity therein, (P.), B., 826.
 Baldwin, R. S., and Johnston, W. A., mineral separator, (P.), B., 21.
 Balfour, Guthrie & Co. See Jones, P. R.
 Balke, C. W., and Fansteel Products Co., Inc., [solder for] tungsten welding, (P.), B., 58.
 Ball, C. D., *jun.* See Huston, R. C.
 Ball, E. G. See Wilson, D. W.
 Ball, R. H. See Clark, R. H.
 Ballard, A. See Sheppard, S. E.
 Ballauf, F., Muth, F., Schmelzer, A., and Grasselli Dyestuff Corporation, [sulphide vat] dye intermediates, (P.), B., 808*.
 Ballauf, F. See also I. G. Farbenind. A.-G.
 Ballay. See Guillet, L.
 Ballay, M., theory of the Ludwig-Soret effect, A., 241.
 Ludwig-Soret effect in metallic alloys. I. and II., B., 787, 897.
 Balle, G. See Daimler, K., and I. G. Farbenind. A.-G.
 Ballit, L., Resnic, A., and Lnevsy, I., determination of urea in serum and whole blood, A., 786.
 Ballin, C., manufacture of metal sheets and articles with radioactive properties, (P.), B., 790.
 Ballog, G. See Ditmar, R.
 Balls, A. K. See Hixson, A. W.
 Balmukand, B., crop variation. V. Relation between yield and soil nutrients, B., 906.
 Baltrusch, W., grain composition of dusts and powders, B., 111.
 Baly, E. C. C. See Pollopos, Ltd.
 Baly, E. J. See Pollopos, Ltd.
 Balz, G. See Biltz, W., and Erzröstung Ges.m.b.H.
 Balz, O. See I. G. Farbenind. A.-G.
 Bamag-Meguain Aktien-Gesellschaft, scrubbing waste acid gases [from the manufacture of nitric acid], (P.), B., 746.
 Bamann, E. See Willstätter, R.
 Bamberg, K., evaluation of phosphatic fertilisers by means of their solubility in nitric and citric acids, B., 26.
 chemical determination of soil fertility, B., 618.
 Bamberger, P., characterisation of fats, A., 194.
 determination of the fat of animal organs, A., 194.
 Bamford, F., keeping properties of specific anti-sera for the precipitin test, A., 1270.
 Ban, Y., retort construction and the constitution of low-temperature gas benzene, B., 776.
 Ban, Y., and Suwa, T., low-temperature tar oil as a Diesel engine fuel, B., 776.
 Banchi, G., determination of the concentration of active hydrogen ions in oligometallic mineral waters, A., 262.
 refractive and dispersive power of santonin and of some of its isomerides and derivatives. I. Santonin, parasantonide, and α - and β -metasantonin, A., 524.
 Bancroft, W. D., displacement of equilibrium by light, A., 601.
 Bancroft, W. D., and Davis, H. L., osmotic pressures of ideal solutions, A., 14.
 osmotic pressures of concentrated solutions, A., 239.
 Bancroft, W. D., and Tucker, C. W., Gibbs on emulsification, A., 16.
 Bandemer, S. L. See Miller, E. J.
 Banderet, E., maintaining or restoring the electric capacity of the negative plates of lead accumulators, B., 490.
 Bandopadhyaya, G. B., photo-electric effect of soft X-rays, A., 1068.
 Bandte, G. See Riesenfeld, E. H.
 Bandur, A. F., and Western Electric Co., Inc., treatment of magnetisable materials, (P.), B., 416.
 Bandur, A. F. See also Western Electric Co., Inc.
 Banerji, S. N., and Dhar, N. R., viscosity of glycogen and some dyes and the relation between gelatinisation and double refraction, A., 1187.
 Banès, F. See Boutaric, A.
 Bangert, F. See Fischer, F., and Wittig, G.
 Bangert, H., furnace, (P.), B., 1.
 Bangham, D. H., chemical dynamics in a rigidly coherent plane, A., 599.
 Bangham, D. H., and Fakhoury, N., expansion of charcoal accompanying sorption of gases and vapours, A., 1317.
 Banks, H. P. See Laucks, Inc., I. F.
 Bannerji, K. C., value of p_H control in gur refining, B., 541.
 Bannister, W. J., and Commercial Solvents Corporation, n -tributyl borate, (P.), B., 562.
 Bannister, W. J. See also Commercial Solvents Corporation.
 Banos, M. See Durand, J. F.
 Banse, H. See Roth, W. A.
 Bansi, H. W. See Zondek, A.
 Banta, C. See Rogers, A.
 Baranger, P. See Carré, P.
 Baranowski, K., coatings conductor of electricity for electroplating non-metallic articles, (P.), B., 790, 823.
 Barabá, B. See Roffo, A. H.
 Barbaudy, control of p_H value in the sugar industry, B., 383.
 Barber, H. H., and Kolthoff, I. M., specific reagent for the rapid gravimetric determination of sodium, A., 859.
 Barber, H. J., and Smiles, S., cyclic disulphides derived from diphenyl, A., 769.
 Barber Asphalt Co., and McRae, F. W., curing cementing materials, (P.), B., 860.
 Barbet, E. A., utilisation of alcoholic fermentation in order to form large quantities of glycerin by use of sulphurous acid, (P.), B., 208.
 production of formaldehyde by catalysis, (P.), B., 360.
 Barbet, E. A., and Malbay, R., continuous distillation of tree branches, vines, etc., (P.), B., 220.
 Barbetti, D. See Plotnikov, J.
 Barbier, G. See Demolon, A.
 Barbier, H., elimination of side-chains during the nitration of aromatic compounds, A., 280.
 6-acetyl-2-isobutyl-*m*-tolyl methyl ether and its nitration products, A., 291.

- Barbier, *N. J.*, treatment of articles [deposition of metal on articles] in metallic baths, (P.), B., 128.
- Barbieri, *G. A.*, salt of bivalent silver, A., 139.
- Barbieri, *G. A.*, and Parisi, *E.*, complex cyanides, A., 159.
- Barbieri, *N. A.*, tabacin, the toxic principle of tobacco, A., 1063.
- Barbou, *P. A.*, and Delvaile, *R.* [Soc. Barbou & Cie.], treating residual liquors accruing from the treatment of cellulose material [using sodium sulphite], (P.), B., 814.
- Barchfeld, *G.* See Wick, *G.*
- Barclay, *S. F.*, and Mather & Platt, Ltd., chemical fire extinguisher, (P.), B., 3.
- Barcroft, *J.*, protein grouping of haemoglobin, A., 537.
- Barcroft, *J.* See also Abeloos, *M.*
- Bard, *F. N.* See Marsh, *J. R. C.*
- Bardenheuer, *P.*, and Müller, *C. A.*, influence of certain elements present in steel on the determination of oxygen in steel by the hydrogen reduction method, B., 573.
- Bardenheuer, *P.*, and Zeyen, *K. L.*, graphite in cast iron and its influence on the tensile strength, B., 407.
- Bardet, *J.*, and Tchakirian, *A.*, preparation and properties of some germanous salts, A., 380.
- Bardhan, *J. C.*, synthesis of certain γ -ketonic acids allied to Balbiano's acid. II. Syntheses of $\alpha\beta$ - and $\alpha\beta$ -trimethyllevulic acids, of the lactone of α -hydroxy- $\alpha\beta$ -trimethylglutaric acid, and of γ -keto- $\alpha\beta$ -trimethylpropane- $\alpha\gamma$ -dicarboxylic acid (Balbiano's acid), A., 1215.
- syntheses of certain γ -ketonic acids allied to Balbiano's acid. I. Syntheses of α -methylcyclopentane-1:1-diacetic acid; the lactone of α -hydroxy- α -methylcyclopentane-1:1-diacetic acid, and 1-acetylcylopentane-1-acetic acid, A., 1243.
- Bardorf, *C. F.*, migration of cane-wax complex through stations of a [sugar] refinery, B., 540.
- Bardwell, *D. C.* See Lind, *S. C.*
- Bareggi, *A.*, determination of stercobilin, A., 666.
- Bareiss, *H.*, feeding trials with milch cows using ammonium acetate as a substitute for protein foods in agricultural practice, B., 283.
- Bares, *J.*, nutritive value of mushrooms (*Cantharellus cibarius*), A., 95.
- Bares, *J.* See also Stoklasa, *J.*
- Barg, *I.* See Bergman, *A.*
- Bargues, *M. A.*, formation of starch in the needles of the pine, A., 1162.
- Barhoff, *F. W.*, Brooks, *W. C.*, and Hartford Battery Manufacturing Co., salt for electrolytic rectifiers, (P.), B., 305.
- Barjot, *H. M. R.*, apparatus for the separation of hydrogen from hydrogenous [gas] mixtures [water-gas, etc.], (P.), B., 568.
- Barkan, *G.*, iron. II. Labile iron of blood, and its relation to haemoglobin. III. Distribution of labile iron between blood-corpuscles and -plasma, and its behaviour, A., 537.
- iron content of blood-serum, A., 1269.
- Barkenbus, *C.*, Friedman, *E. B.*, and Flege, *R. K.*, reaction of *para*-substituted benzyl chlorides with sodium hydrogen sulphide, A., 61.
- Barker, *E. F.* See Colby, *W. F.*, and Stinchcomb, *G. A.*
- Barker, *W. H.*, machines for separating coal and other materials, (P.), B., 436.
- Barker, *W. M.*, and Bonnot, *L. C.*, pulverising mill, (P.), B., 552.
- Barkholt, *H.*, use of rotating tubes for crystallisation and evaporation, B., 695.
- Barkla, *C. G.*, modified scattered X-radiation and superposition; the *J*-phenomenon. VIII, A., 818.
- Barkley, *J. F.*, blast-furnace gas, B., 55.
- Barlow, *O. W.* See Luckhardt, *A. B.*
- Barmore, *M. G.* See Phelps, *O. A.*
- Barnard, *A. E.*, Caswell, *R. G.*, and Pratt, Inc., W. B., manufacture of paper, (P.), B., 11.
- Barnard, *C. M.*, and British Alizarine Co., Ltd., manufacture of dyes, and dyeing of cellulose esters, (P.), B., 83.
- Barnard, *D. P.*, lubrication [and lubricating oils], B., 737.
- Barnard, *G. P.*, light-sensitivity of commercial selenium cells, A., 1192.
- Barnebey, *O. L.*, and American Solvent Recovery Corporation, treatment of gases, (P.), B., 325, 508.
- separation of liquids, (P.), B., 507.
- Barnes, *G. R.*, and Pyman, *F. L.*, sulphonation of glyoxalines. III, A., 75.
- Barnes, *H. D.*, sensitive colour reactions for magnesium, A., 1108.
- Barnes, *J.*, shift in a near infra-red absorption band of some benzene derivatives, A., 1307.
- Barnes, *J.*, and Fulweiler, *W. H.*, near infra-red absorption of benzene and toluene, A., 458.
- near infra-red absorption bands of some hydrocarbons, A., 686.
- absorption spectrum of liquid benzene, A., 1306.
- Barnes, *M.* See Norton, *J. F.*
- Barnes, *R. S.* See Hunter, *L.*
- Barnett, *E. de B.*, and Cook, *J. W.*, alkylanthracenes and "transannular tautomerism." IV, A., 406.
- synthesis of *meso*-alkyl and *meso*-aryl anthracene derivatives. III, A., 514.
- Barnett, *E. de B.*, Cook, *J. W.*, and Ellison, *T. E.*, absorption spectra of anthracene derivatives, A., 571.
- Barnett, *E. de B.*, Cook, *J. W.*, and Matthews, *M. A.*, alkylanthracenes and "transannular tautomerism." III. 1:5-Dichloro-9-benzylanthracene, A., 52.
- Barnett, *E. de B.*, and Wiltshire, *J. L.*, synthesis of *meso*-alkyl and *meso*-aryl anthracene derivatives. IV, A., 995.
- Barnhart, *E.* See Bent, *Q.*
- Barnhart Bros. & Spindler. See Brink, *L. R.*
- Barnickel & Co., W. S. See De Groote, *M.*
- Barnicoat, *C. R.*, m. p. of the substituted amides of dibasic acids, A., 114.
- Baroni, *A.* See Ferrari, *A.*
- Barr, *G.*, construction of wave-length scales for spectrograms, A., 337.
- Barr, *J. A.*, and International Agricultural Corporation, manufacture of briquettes containing phosphate rock, (P.), B., 169.
- Barral, *E.*, rapid formation of adipocere during cadaveric putrefaction, A., 787.
- reduction of picric acid by plants, A., 802.
- Barratt, *J. O. W.*, anticoagulant action of peptone *in vitro*, A., 318.
- Barratt, *S.* See Walter, *J. M.*, and Walters, *O. H.*
- Barraud, *S.* See Dupont, *G.*
- Barraud, (*Mlle.*) *M.*, analysis of Bordeaux spirits of turpentine by rise of temperature on mixing with sulphuric acid, B., 865.
- Barre, *R.*, action of organo-magnesium derivatives on tetraethyl-oxamide, A., 50.
- action of organo-magnesium derivatives on some oxamides, A., 624.
- Barré, *R.*, and Cornillot, *A.*, [electrolytic] dissociation of α -keto-acids, A., 128.
- Barré, *R.*, and Kohler, *E. P.*, action of bromine on phenyl β -phenylstyryl ketone, A., 1009.
- Barrenscheen, *H. K.*, methylglyoxal as intermediate product in glycolysis in blood, A., 437.
- Barrenscheen, *H. K.*, and Albers, *W.*, rôle of phosphorus in the intermediate carbohydrate metabolism of plants, A., 1162.
- Barrenscheen, *H. K.*, and Häbner, *K.*, blood-sugar. IX. Effect of the Hofmeister series on glycolysis in blood, A., 912.
- Barrenscheen, *H. K.*, and Messiner, *L.*, colorimetric micro-determination of sodium, A., 96.
- Barrett, *C. S.*, scattering of X-rays from gases, A., 339, 939.
- Barrett, *F. L.* See Bleachers' Assoc., Ltd.
- Barrett Co. See Altman, *J. W.*, Downs, *C. R.*, Miller, *S. P.*, Perry, *R. P.*, and Weisberg, *L.*
- Barringer, *L. E.* See British Thomson-Houston Co., Ltd.
- Barritt, *J.*, nitrogen content of natural and processed wools, B., 294.
- Barrolier, *J.* See Belleaud, *R. L. M.*
- Barron, *E. S. G.*, and Harrop, *G. A., jun.*, blood-cell metabolism. II. Effect of methylene-blue and other dyes on glycolysis and lactic acid formation of erythrocytes, A., 1268.
- Barron, *E. S. G.* See also Perlzweig, *W. A.*
- Barrow, *F. L.*, measurement of moisture movements in building materials, B., 125.
- Barrows, *W. S.*, nickel anodes and their use, B., 759.
- Barrs, *E.* See Barrs, *W.*
- Barrs, *W.*, and Barrs, *E.*, treatment of waste liquors of paper manufacture for the recovery of caustic alkali therein, (P.), B., 331.
- Barry, *G.*, Bunbury, *E.*, and Kennaway, *E. L.*, effect of arsenic on some oxidation-reduction systems, A., 1049.
- Barry, *T. H.*, Malayan varnish resins. I and II, B., 61, 614.
- Barsch, *H.*, fat determination in milk and cream confectionery, B., 766.

- Barsky, G., and American Cyanamid Co., production of a fertiliser product, (P.), B., 169.
- Bartélemy, H. L., and Ruth Aldo Co., Inc., manufacture of cellulose esters; cellulose acetate, (P.), B., 477.
- Bartell, F. E., and Miller, F. L., measurement of interfacial tension of liquid-liquid systems, A., 945.
- degree of wetting of silica by crude petroleum oils, B., 630.
- Bartell, F. E., and Osterhof, H. J., work of adhesion between solid and liquid phases, A., 12.
- function of carbon membranes in osmosis, A., 359.
- pore size of compressed carbon and silica membranes, A., 1320.
- determination of the wettability of a solid by a liquid; relation of adhesion tension to stability of colour varnish and lacquer systems, B., 1.
- Bartels, H., polarisation of the sodium rumpf (core), A., 338.
- method of determining ionisation and resonance potentials. I., A., 452.
- Bartels, H., and Gliwitzky, W., resonance and ionisation potentials of argon, A., 452.
- Bartelstone, L., manufacture of laminated glass, (P.), B., 15.
- Barth, S., manufacture of sulphuric acid in towers, chambers, and boxes, (P.), B., 783.
- Barth, T., lattice constant of thallous iodide, A., 109.
- sagvandite, an eruptive rock containing magnesium, A., 1210.
- Barth, T., and Lunde, G., villiumite, A., 150.
- Barth, W. See Hock, L.
- Barthe, L., and Duflho, E., determination of chlorine and sodium in mammalian milks, B., 385.
- Barthelmess, E., manufacture of red lead, (P.), B., 100.
- Barthmeyer, H. See Schmalfuss, H.
- Bartholomew, (Miss) E. M., and Burrows, G. J., preparation of iodobismuthites, A., 259.
- Bartholomew, (Miss) E. M., and Wark, I. W., cooling curves in the binary systems *p*-toluidine-salicylic acid, and *p*-toluidine-benzoic acid, A., 242.
- Bartholomew, R. P., availability of potassium to plants as affected by barnyard manure, B., 379.
- determination of nitrites in soil, B., 538.
- Bartlett, E. P., Cupples, H. L., and Tremearne, T. H., compressibility isotherms of hydrogen, nitrogen, and a 3:1 mixture of these gases at temperatures between 0° and 400° and at pressures to 1000 atm., A., 698.
- Bartlett, J. H., jun. See Barton, H. A.
- Bartlett, R. S., resistance of sputtered films, A., 695.
- Bartlett Hayward Co. See McGurty, W. J., and Wagner, F. H.
- Bartling, F. See Trocknungs-, Verschmelzungs-, & Vergasungs-Ges.m.b.H.
- Bartmann, L., treatment of cereals, (P.), B., 106.
- Bartmann, L., and Treuhand-Ges.m.b.H. Bartmann & Co., recovering the endosperm from cereals; treating cereals, (P.), B., 545*.
- Barton, B. See Parks, G. S.
- Barton, H. A., ionisation of hydrogen chloride by electron impacts, A., 5.
- Barton, H. A., and Bartlett, J. H., jun., positive-ray analysis of water vapour ionised by impact of slow electrons, A., 683.
- Barton, H. W. See Taylor, A. E.
- Barton, L. E., Ryan, L. W., and Titanium Pigment Co., Inc., manufacture of composite titanium pigment, (P.), B., 762*.
- Barton, L. J., manufacture of an abrasive-resisting metal, (P.), B., 337.
- Barton, L. V., and Trelease, S. F., stimulation, toxicity, and antagonism of calcium nitrate and manganese chloride as indicated by growth of wheat roots, B., 535.
- Bartow, E. See Peterson, B. H.
- Bartsch, K. See Silesia Verein Chem. Fabr.
- Bartsch, P., protection of wood, (P.), B., 232*.
- Barwasser, N. See Kahlenberg, J.
- Bary, P., number of phases in colloidal systems, A., 15.
- property of certain silica gels, A., 477.
- formation of filaments of ferric oxide by evaporation of colloidal solutions, A., 705.
- silica gels, A., 836.
- structure of the filaments obtained by the desiccation of colloidal ferric oxide solutions, A., 1186.
- Barysheva, H. See Stadnikov, G.
- Baschiloff, I., extraction of radium and mesothorium from radioactive chlorides in the cold, B., 157.
- Baseour, F., and Société Anonyme Cribla, apparatus for washing and sorting coal and the like, (P.), B., 734*.
- Basel, G. See Wacker Ges. f. elektrochem. Ind. G.m.b.H., A.
- Basilious, M. See Wintersteiner, O.
- Basini, M. See Mutti, I.
- Bass, A., and Glocker, R., recrystallisation of α -brass, B., 487.
- Bass, I. See Kotelnikov, N.
- Bass, L. A., and Vilbrandt, F. C., asphaltogenic substances in American lubricating oils, B., 355.
- Bass, L. W. See Levene, P. A.
- Basset, L. P., removal of phosphates from iron ores, (P.), B., 127.
- Basset, P. E., plastic [insulating] material and its manufacture, (P.), B., 720.
- Bassett, H. P., manufacture of alkali sulphydrates [hydrogen sulphides], (P.), B., 568.
- manufacture of artificial silk, (P.), B., 743.
- recovery of volatile plasticisers from celluloid, etc., (P.), B., 889.
- Bassett, W. H., and Davis, C. H., physical characteristics of commercial copper-zinc alloys, B., 126.
- Bassler, A., iodine-starch test of body fluids; deductions from tests of external secretion of pancreas in diabetes, in diseases of the gall-bladder and pancreas, and in a normal condition, A., 321.
- Bassler, E. M., air- and gas-washing apparatus, (P.), B., 774.
- Basterfield, S., and Whelen, M. S., acylisocarbamides, A., 158.
- Basterfield, S., Woods, E. L., and Whelen, M. S., urethanes. IV. Acylurethanes and their reactions with ammonia and amines, A., 53.
- Bastings, L., coefficient of absorption in lead of the γ -rays from thorium-C' and radium-C, A., 565.
- precision measurements in radioactivity, A., 569.
- Basu, J. K. See Mukherjee, J. N.
- Basu, K. P. See Ghosh, J. C.
- Basu, P. N., anaemia among troops in Bombay, A., 196.
- Basu, S. See Prasad, K.
- Basu, S. K. See Sen, K. C.
- Basu, U. See Sen, H. K.
- Bataafsche Petroleum Maatschappij, manufacture of refined lubricating oils, (P.), B., 252.
- coating of material [paper] with bituminous substances, (P.), B., 438.
- Batchell, G. W. See Fisher, E. E.
- Batchelor, H. W., clamp for rubber tubing, A., 610.
- Batchelor, H. W. See also Gibbs, W. M.
- Bateman, D. E., and Marvel, C. S., structure of the hydrocarbon $C_{17}H_{18}$ obtained by the dehydration of diphenyl-*tert*-butylcarbinol, A., 52.
- Bateman, G. M., and Sharp, P. F., apparent viscosity of milk as influenced by some physical factors, B., 687.
- Bateman, L. C., manufacture or utilisation of india-rubber, (P.), B., 62.
- Bates, E. N., and Bodnar, G. P., laboratory aspirator, A., 1110.
- Bates, J. R., and Andrews, D. H., fundamental frequencies, interatomic forces, and molecular properties, A., 462.
- Bates, J. R., and Taylor, H. S., photosensitisation. II. Source of cadmium resonance radiation, A., 490.
- Bates, L. F., specific heats of ferromagnetic substances, A., 468.
- P.D. measurements with a ferromagnetic compound of manganese and arsenic, A., 1098.
- Bates, L. F., and Brown, R. C., laboratory uses of monel metal, A., 984.
- Bates, L. T., distillation of hydrocarbons, and fuel produced thereby, (P.), B., 291.
- Bates, L. W. See Plauson, H.
- Batho, H. F. See Dempster, A. J.
- Batley, A., absorption spectrum of iodine in ethyl alcohol, A., 1071.
- Batscha, B., catalytic action of platinum and the law of mass action, A., 600.
- Batschinski, A., specific heats of gases as pure temperature functions, A., 468.
- Battegay, and Schmid, J., production of thioindigo scarlet on the fibre, B., 811.
- Battegay, M., nitration by means of nitrogen peroxide, A., 402.
- Battegay, M., and Kern, W., constitution of nitrogen peroxide, A., 34.
- Battegay, M., and Schneider, A., sulphonation in basic or neutral media; arylsulphonanilidosulphonic acids ($ArSO_2NH_2C_6H_4SO_3H$), A., 164.
- Battelle, E. E., value of balancing the total soluble solids of the cane-sugar factory, B., 498.
- Battelli, F. See Stern, L.
- Batterien- & Elemente-Fabr. System Zeiler Akt.-Ges., production of insulating and sealing material for electric cells and batteries, (P.), B., 934.

- Battig, R., production of hydrogen from gases obtained in the production of coke, (P.), B., 470.
- production of hydrogen by decomposing saturated or unsaturated hydrocarbons or gaseous mixtures containing the same, (P.), B., 748.
- Battle, H. W. See Probeck, E. J.
- Baud, A., and Courtols, test for refined olive oils in virgin olive oils, B., 201, 273*, 455*.
- Baud, P., use of gypsum in the manufacture of ammonium sulphate, B., 12.
- manufacture of hydrated baryta from the carbonate, B., 230.
- Baudisch, O., different states of iron in relation to its chemical behaviour, A., 856.
- Baudisch, O., and Davidson, D., natural mineral waters in the light of modern research, A., 40.
- Baudisch, O. See also Welo, L. A.
- Baudouin, A., determination of the reducing substances in blood, A., 1392.
- Bauer, E. See Weygand, C.
- Bauer, Emil, preparation of fertiliser from fermentation waste, B., 345.
- Bauer, Emil, and Szold, L. (Eisler & Szold), production of manure from spent molasses waste, (P.), B., 280.
- Bauer, Erwin. See Kraut, H.
- Bauer, K. H., constitution of elcmic acid, A., 412.
- determination of organically-combined sulphuric acid in sulphonated oils, B., 273.
- determination of organically-combined sulphur in sulphonated oils, B., 935.
- Bauer, K. H., and Lauth, H., ethylene dichloride as solvent, B., 473.
- Bauer, K. H., and Mitsotakis, J., isooleic acids, A., 1115.
- fatty acids of olive oil, B., 902.
- Bauer, K. H., and Rohrbach, E., hexabromide of elæostearic acid, B., 678.
- Bauer, L. H. See Palache, C.
- Bauer, O., Göler, von, and Sachs, G., [mechanical properties and crystal orientation of] copper and brass, B., 675.
- Bauer, R., determination of essential oils in drugs, B., 691.
- Bauer, W., and Durand & Huguenin Société Anonyme, manufacture of water-soluble ester-like derivatives of vat dyes, (P.), B., 562.
- Baugé, G., and Épailly, T., dehydration and rectification of alcohol and other volatile products, (P.), B., 32.
- Baughman, W. F., and Jamieson, G. S., chemical composition of ergot oil, B., 416.
- Baughman, W. F. See also Jamieson, G. S.
- Baukloh, K., optical sensitisation of silver iodide, B., 655.
- Baule, B., and Benedetti-Pichler, A., sampling granular material, A., 1105.
- Baum, E., Deutsch, H., Herrmann, W. O., Mugdan, M., and Consortium für Elektrochemische Industrie G.m.b.H., production of vinyl acetate, (P.), B., 362*.
- Baum, F., analytical evaluation of technical casein, B., 622.
- Baum, G., and Niagara Electro Chemical Co., Inc., heating liquids by electrical energy, (P.), B., 933.
- Baum, K. See Bunte, K.
- Baumann, M., production of thioindigo scarlet on the fibre, B., 811.
- Baumann, O., detection of thickening agents in whipped cream, B., 910.
- Baumann, T., [removal from cotton yarns and fabrics of] mineral oil stains, B., 741.
- Baume, G., Chambigé, P., and Boutier, D., preparation of emulsions or suspensions [for roads, etc.], (P.), B., 194, 750.
- Baumgarten, H. See Cohen, A.
- Baumgarten, P., sulphonation of amino-acids and polypeptides, A., 534.
- Baumhauer, F., and Dynamidon-Werk Engelhorn & Co., G.m.b.H., production of highly refractory magnesite masses, (P.), B., 232*.
- Baur, E., reduction of carbon dioxide by light, A., 255.
- sodium salicylate and salicylic acid and "unilateral" equilibrium, A., 1329.
- establishment of equilibrium from one side or from both sides, as described in the literature, A., 1329.
- sensitised photolysis, A., 1338.
- nature of desensitisation, B., 655.
- Baur, E. [with Somlo, F., and Mackinney, H. W.], electrolysis of anhydrous formic acid, A., 489, 617*.
- Baur, E., and Müller, Emil, electrolysis of benzoic acid, A., 490.
- Baur, E., and Neuweiler, C., photolytic formation of hydrogen peroxide, A., 30.
- Baur, K. See Pringsheim, H.
- Baus, R., colour standards for bone-black revivification tests, B., 4.
- Bausch & Lomb Optical Co. See Montgomery, R. J.
- Bausman, A. L. See National Equipment Co.
- Baxendale, J., and Hughes & Treleven, Ltd., grinding or mixing of paints, inks, etc., (P.), B., 377.
- Baxter, G. P., and Butler, A. Q., at. wt. of titanium. III. Analysis of titanium tetrabromide, A., 343.
- Baxter, G. P., and Starkweather, H. W., density, compressibility, and at. wt. of argon, A., 343.
- density, compressibility, and at. wt. of neon, A., 343.
- Baxter, J. P., combustion of carbon monoxide. I, A., 247.
- Baxter, W. P. See Dickinson, R. G.
- Bayarri, V. S. See Levaditi, C.
- Bayer, E. C., production of porous [heat- and sound-]insulating materials, (P.), B., 299.
- Bayer, M. See Tanfer, J.
- Bayer, O. See Braun, J. von.
- Bayle, E., and Amy, L., electrolytic deposition of traces of metals and their characterisation by spectrum analysis, A., 726.
- use in analysis of the mercury dropping cathode, A., 857.
- Bayley, P. L., X-ray coloration of kunzite and hiddenite, A., 1312.
- Baylis, J. R., system calcium oxide, silica, and water, A., 1095.
- method for phenol determinations [in water], B., 504.
- Baylis, W. S., and Filtrol Co., reactivation of adsorptive material, (P.), B., 222.
- Bayliss, N. S. See Goode, E. A.
- Beacall, T., m. p. of benzene derivatives, A., 227.
- Beach, I. T. See Orndorff, W. R.
- Beacon Oil Co., and Hewetson, H. H., containers for treating corrosive liquids, etc., (P.), B., 144.
- Beakes, H. J., settling of pigments in house paints, B., 647.
- Beale, A. See Hele-Shaw, H. S.
- Beale, E. S. L. See Anglo-Persian Oil Co., Ltd.
- Beams, J. W. See Lawrence, E. O.
- Beans, H. T., and Walden, G. H., jun., ballistic galvanometer method of potentiometric measurement for high-resistance cells, A., 1349.
- Bear, F. E., scientific use of nitrogen fertilisers, B., 311.
- Beard, H. H. See Chanutin, A.
- Bearden, J. A., polarisation of characteristic radiation, A., 1174.
- Beath, C. P. See Western Electric Co., Inc.
- Beattie, (Miss) F., micro-method for the colorimetric determination of urea in blood, A., 786.
- Beattie, J. A., entropy and thermodynamic potentials of real gases and mixtures of real gases, and a mass action law for chemical reaction between real gases. I. General thermodynamic relations, A., 588.
- entropy and thermodynamic potentials of real gases and mixtures of real gases, and a mass action law for chemical reaction between real gases. II. Integrated equations. III. Relations for pure gases, and the equilibrium pressure of a gas in a mixture, A., 1315.
- Beattie, M. K., Bell, J., and Milroy, T. H., enzymic processes in mammalian skeletal muscle, A., 921.
- Beattie, R., and Texas Pacific Coal & Oil Co., mixing of [acid] sludge, (P.), B., 326.
- Beaucourt, K., condensation products of furfuraldehyde with acid amides, A., 766.
- Beaucourt, K., and Hämmerle, E., nitration of phenol, A., 1369.
- Beaucourt, K. See also Böck, F.
- Beaver, D. J., and Keller, T. P., effect of various types of carbon black on certain physical properties of rubber compounds, B., 720.
- Beaver, D. J. See also Plummer, W. B.
- Beaver, J. J., and Muller, R. H., action of ultra-violet light on some colloidal dispersions of gold, A., 361.
- Beber, M. See Morgulis, S.
- Bechdel, S. I. See Kruger, J. H.
- Becher, E., hydrogen sulphide in blood in uræmia; hydrogen sulphide-decomposing power of blood and other body fluids, A., 916.
- Becher, E., Litzner, S., and Doenecke, F., concentration ratio of aromatic substances between serum and urine in renal health and disease, A., 544.
- Becher, H. L., and Agasote Millboard Co., sizing fibres, (P.), B., 706*.

- Bechhold, H., compounds of albumin and metallic salts, A., 1388.
- Bechhold, H., and Heymann, E., state of dispersion of [commercial] preparations of colloidal silver, B., 388.
- Bechhold, H., and Silbereisen, K., coarse ultra-filters, A., 1408.
- Beck, A., determination of p_{H_2} of fluids containing carbon dioxide at different partial pressures, A., 143.
- micro-determination of carbon dioxide tension, A., 1292.
- Beck, A. See also Biltz, H., and I. G. Farbenind. A.-G.
- Beck, C. See I. G. Farbenind. A.-G.
- Beck, G., scheme [for the prediction of the atomic masses] of isotopes, A., 344.
- thermodynamic relationships concerning the constitution of compounds of ter- and multi-valent elements, A., 955.
- atom models [nucleus] for isotopes. II., A., 1301.
- Beck, H., arc lamp electrodes, (P.), B., 212.
- Beck, J. See Douris, R., and Wilke-Dörfurt, E.
- Beck, K., and Schmidt, W. A., antimony enamels, B., 367.
- Beck, O., supposed photoactivity of irradiated substances, A., 140.
- Beck, W. A., sucrose and potassium nitrate as plasmolysing agents, A., 96.
- Becker, A. E., and Standard Oil Development Co., distillation [of hydrocarbon oils], (P.), B., 702.
- Becker, E., ultra-violet light and its use in accelerated weathering tests on paints, B., 531.
- Becker, E. H. See Martus, M. L.
- Becker, H., condensation of phenylenediamines with acetanilide; salts of tolylphenylethylenylamines, A., 996.
- Becker, H. See also Kögl, F.
- Becker, J., and Koppers Co., ammonia-saturator apparatus, (P.), B., 220.
- gas purification, (P.), B., 470.
- coking retort ovens, (P.), B., 631, 737.
- Becker, J. A., life-history of an adsorbed atom of caesium, A., 1303.
- Becker, J. A., and Mueller, D. W., electric fields near metallic surfaces, A., 453.
- Becker, J. E. See McCollum, E. V.
- Becker, K., internal strain in X-ray photographs, A., 352.
- constitution of tungsten carbides, A., 1176.
- Becker, M. L. See Jones, E. O.
- Becker, P. See Chavanne, G.
- Becker, S. W., sugar and chloride content of the cerebrospinal fluid with special reference to neurosyphilis, A., 791.
- Beckers, M., equation of state for easily liquefied hydrocarbons. II. Weight of a litre of *n*-butane, A., 116.
- Beckers, M. See also Mariq, L.
- Becket, F. M., and Electro-Metallurgical Co., zirconium-manganese steel, (P.), B., 269.
- production of corrosion-resistant surfaces on metals, (P.), B., 575.
- welding of copper and copper alloys, (P.), B., 758.
- Beckett, D. A., influence of separation and pasteurisation on size and distribution of fat globules in milk and cream, B., 104.
- Beckett, E. G., Harris, J. E. G., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., [manufacture of] sulphuro-anhydride compounds of tertiary bases, (P.), B., 703.
- Beckett, E. G. See also White, G. N.
- Beckett, S. H., use of highly viscous fluids in the determination of volume weight of soils, B., 619.
- Beckinsale, S., and Waterhouse, H., deterioration of lead cable sheathing by cracking, and its prevention, B., 410.
- Beckman, A. O., and Dickinson, R. G., products of the photochemical decomposition of azoimide, A., 970.
- Beckman, A. O. See also Noyes, A. A.
- Beckmann, C. O. See Zanetti, J. E.
- Beckmann, H., microchemistry of the alkaloids, A., 1265.
- Beckurts, H., determination of santonin in *Flores cinæ*, A., 182.
- Beckwith Manufacturing Co. See Clapp, A. L.
- Bequerel, J., existence of two magnetic rotatory powers for a uniaxial crystal along and normal to the axis, A., 941.
- Bequerel, J., and De Haas, W. J., division of the Faraday effect into two phenomena of different origins; diamagnetic and paramagnetic rotatory polarisation, A., 823.
- Bedford, C. S., dyeing of artificial silk, (P.), B., 189*.
- dyeing machines, (P.), B., 480.
- Bedford, C. W., and Goodrich Co., B. F., vulcanisation of rubber, (P.), B., 165.
- Bedford, C. W., and Goodyear Tire & Rubber Co., vulcanising of caoutchouc, (P.), B., 133*.
- Bedient, H. A. See Chamot, E. M.
- Bee, J. W. See Woodman, H. E.
- Beebe, M. C., Murray, A., Herlinger, H. V., and Wadsworth Watch Case Co., photographic medium and process, (P.), B., 317.
- Beebe, M. C., and Wadsworth Watch Case Co., photographic and etching process and product, (P.), B., 173.
- Beebe, R. A., and Summers, D. B., copper sulphate as the Deacon chlorine catalyst?, A., 253.
- Beech-Nut Packing Co. See Hamlin, M. L., and Howe, D. W.
- Beek, O. See Ramsauer, C.
- Beek, P. A. A. van der, m. p. curves of the nitrobenzaldehydes in the presence of acetic anhydride, A., 366.
- auto-oxidation of benzaldehyde, A., 413.
- auto-oxidation of benzaldehyde in presence of acetic anhydride, A., 413.
- Beer, E., and Peczenik, O., modification of congo-red method for determination of pepsin, A., 1283.
- Beer, O. L., manufacture of water-soluble humic acid derivatives, (P.), B., 220.
- Beesley, E., and Ridyard, H. N., experimental technique of photochemistry. VI. Energy distribution of the Uviol lamp, A., 1197.
- Beeston, W. G., regenerative furnaces, (P.), B., 216.
- annealing furnaces, (P.), B., 247.
- Beet, A. E., determination of hydrogen in complex gaseous mixtures by absorption in colloidal palladium solution, B., 113.
- Beetlestone, N. C., yeast cell and yeast cake, B., 170.
- Beghin, P. See British Alizarine Co., Ltd.
- Behague, Garsaux, and Richet, C., jun., minimum oxygen pressure necessary for life, A., 910.
- Behmer, O., and Texas Co., manufacture of gasoline, (P.), B., 222*.
- Behr, A. See Ott, E.
- Behr, H. See Pfeiffer, P.
- Behr, H. C., [centrifugal] separation of liquids from solids, (P.), B., 74.
- Behrens, J. See I. G. Farbenind. A.-G.
- Behrens, M. See Feulgen, R.
- Behrens, W. See Posener, K.
- Behrens, W. U., partition of lactic acid between water and ether and between water and amyl alcohol, A., 12.
- new indicator papers for determination of hydrogen-ion concentration, A., 496.
- acid properties of artificial and soil permutites, B., 582.
- uptake and utilisation of plant nutrients, B., 683.
- mathematical expression of the action of nutrients, B., 683.
- Behrman, A. S. See Green, W. H.
- Beier, F. See Bergmann Elektrizitäts-Werke A.-G.
- Beightler, R. S., consistency of silicate of soda for curing concrete, B., 265.
- Beisler, W. H. See Flood, W. E.
- Bek, E. G., manufacture of plated goods, (P.), B., 413.
- Békésy, G. von, measurement of diffusion constants in liquids, A., 229.
- Belani, E., steam-temperature control in distillation practice and in paraffin manufacture, B., 218.
- Belcot, C., surface tension at the interfacial layer of two non-miscible liquids, A., 472.
- Beldam, W. R. See Fulcher, F. C.
- Belden Manufacturing Co. See Wermin, H. H.
- Belding, D. L., toxicity experiments with fish in reference to trade waste pollution, B., 838.
- Bělehrádek, J., Huxley, J. S., and Curtis, F. R., relation between (a) external hydrogen-ion concentration and (b) thallium salts and the rate of amphibian metamorphosis, A., 325.
- Bělehrádek, J., and Schwarz, F., toxic action of fatty acids in relation to the adaptation of the organism, A., 1279.
- Beliankin, D. S., anorthoclase in caucisites, A., 864.
- Belin, P. See Terroine, E. F.
- Beling, R. W., physiological reaction of "nitrophoska," B., 135.
- Belke, W. E., filtering apparatus, (P.), B., 74.
- Belkina, L., Falk, R., and Kremlev, L., effect of catalase injected into the circulating blood; catalase and anticatalase content of various tissues, A., 445.
- influence of intravenous injections of hepatocatalase on the catalase and anticatalase content of rabbit tissues. I. Catalase and anticatalase content of tissues from normal rabbits, A., 1281.

- Belkina, L., and Kremlev, L., influence of intravenous injections of hepatocatalase on the catalase and anticatalase content of rabbit tissues. II. Changes in the catalase and anticatalase content of blood and tissues following injection of massive doses of catalase into the blood, A., 1281.
- Bell, A. F. L., and Associated Oil Co., treatment of [mineral] oils, (P.), B., 149.
- Bell, E. V., and Bennett, G. M., stereoisomerism of disulphoxides and related substances. II. Derivatives of 1:4-dithian, A., 299.
- Bell, F., 2:4:7-trinitrofluorenone, A., 1010.
diphenyl series. VIII. Derivatives of 2- and 4-aminodiphenyl, A., 1367.
- Bell, F., and Henry, T. A., by-products of the Gattermann aldehyde reaction, A., 1245.
- Bell, F. K., infra-red absorption spectra of organic compounds of sulphur. I. Aryl mercaptans and sulphides, A., 1240.
- Bell, G. E., valve-maintained high-frequency induction furnace; performance of induction furnaces, B., 576.
- Bell, G. G. See General Electric Co.
- Bell, J. See Beattie, M. K.
- Bell, James, hydrolysis of guanidine carbonate, A., 1122.
- Bell, J. E., and Foster Wheeler Corporation, heat transfer, (P.), B., 771.
- Bell, J. E., Isom, E. W., and Sinclair Refining Co., cracking of hydrocarbon [oils], (P.), B., 326.
- Bell, J. R. See Ranken, C.
- Bell, R. P., reaction velocity at a liquid-liquid interface, A., 848.
- Bell, R. W., and Peter, P. N., nature of the neutralisation precipitate and its effect on the recovery of milk sugar [lactose] from grain-curd casein whey, B., 499.
- Bell, R. W., Peter, P. N., and Johnson, W. T., jun., obtaining crude lactose and other solids from sweet whey, B., 622.
- Bell, T., and Wright, R., partial vapour pressures of benzene-toluene and benzene-ethylbenzene mixtures, A., 117.
- Bell Telephone Laboratories, Inc., process and apparatus for welding, (P.), B., 863.
magnetic alloys, (P.), B., 899.
- Bell Telephone Laboratories, Inc. See also Kemp, A. R., Legg, V. E., and Lowry, H. H.
- Bell's United Asbestos Co., Ltd. See Harrap, E. R.
- Belladen, L., and Sommariva, A., action of carbon monoxide on metallic chlorides, A., 1095.
- Belleaud, R. L. M., and Barrolier, J., metallic [mercury] vapour lamp, (P.), B., 199*.
- Beller, H. See Fischer, Hans.
- Bellwood, R. A. See Downs, C.
- Belot, A. See Tassilly, E.
- Belozerski, A. See Kiesel, A.
- Belval, H., formation of starch in cereals; the carbohydrates of the leaves and stems of the rice plant, A., 559.
- Bemberg Akt.-Ges., J. P., production of artificial silk and apparatus therefor, (P.), B., 852.
treatment of waste liquors and precipitates therefrom obtained in the manufacture of cuprammonium silk, (P.), B., 889.
- Bemberg Akt.-Ges., J. P. See also Korff, M.
- BeMiller, L. N. See Carr, R. H.
- Benade, W. See Siebert, O.
- Benary, E., and Bitter, G. A., action of ethyl formate on dibenzyl ketone, A., 767.
- Bencan, Champy, C., and Keller, T., female sexual hormones, A., 206.
- Benckiser, J. A. See Benckiser, T.
- Benckiser, T., Reimann, A., and Reimann, A., jun. (Benckiser, J. A.), and Draibach, F., stabilising of bleaching liquors [soap powders, etc.], (P.), B., 445.
removing monoalkaline-earth phosphates from monoalkali phosphate solutions, (P.), B., 893.
- Benckiser Chemische Fabrik, J. A., and Klingbiel, K., production of acid pyrophosphates, (P.), B., 51.
- Bencowitz, J., simple method for measuring rotatory dispersion, A., 1109.
- Benda, L. See Cassella & Co. G.m.b.H., L., and I. G. Farbenind. A.-G.
- Bender, G. H., alloy, (P.), B., 863.
- Bender, H. L., and Bakelite Corporation, synthetic resin composition, (P.), B., 165.
- Bender, J. See Ehrlich, F.
- Bender, J. A. See Nicolet, B. H.
- Bendetzki, M. A. See Plotnikov, V. A.
- Bendixon, N., and Morgan, J. G. Y. D., apparatus for mixing liquids with solid or semi-solid substances or with other liquids, (P.), B., 915*.
- Benecke, W., and Söding, H., microbiological analysis of soils, B., 239.
- Benedek, T., *Schizosaccharomyces hominis*, nov. sp., A., 797.
- Benedetti, E., modifications produced in the course of alcoholic fermentation by the action of an oscillating electromagnetic field on the yeast. II., A., 203.
- Benedetti-Pichler, A., micro-analysis; micro-burette with stop-cock at its upper end; oxidimetric determination of iron by Knop's method; potentiometric titrations with small volumes of liquid, A., 500.
- Benedetti-Pichler, A. See also Baule, B.
- Benedicenti, A., and Bonino, G. B., formation of metal-albumin compounds, A., 189.
- Benedicks, C., relationship between liquidus curves and breaks due to liquid mixtures (Fe-FeS; Fe-Cu); rational expressions for heterogeneous equilibria, A., 242.
- Benedicks, C., and Löfquist, H., solubility of oxygen in iron, and in ferrous oxide (oxoferrite, wüstite), A., 830.
- Benedict, E. M. See Atchley, D. W.
- Benedict, F. G., and Fox, E. L., gaseous metabolism of large wild birds under aviary life, A., 1049.
- Benedict, S. R., determination of blood-sugar. II. A., 438.
- Benedict, S. R. See also Sugiura, K.
- Benes, L. See Vototek, B.
- Benevolenskaja, S. W. See Tschitschibabin, A. E.
- Bengough, G. D., Stuart, J. M., and Lee, A. R., metallic corrosion in the light of quantitative measurements. I. and II., A., 250, 1333.
- Benin, G. S., determination of moisture [in sugar beet] by the distillation method, B., 540.
- Bénit, H., aluminium alloy of high resistance, (P.), B., 758.
- Benjamin, E. V., and Myles Salt Co., Ltd., apparatus for manufacture of sodium sulphate and hydrochloric acid, (P.), B., 893.
- Benjamin, L. R., Somerville, J. L., Jeffreys, R. B., and Cohen, W. E., kraft pulp and paper from *Pinus insignis*, B., 705.
- Benjamin, M. S., rate of decomposition of commercial calcium cyanide, A., 250.
- Benjamin, V. C., deodorising and filtering of oils, (P.), B., 150.
- Benner, H. P. See Egloff, G.
- Benner, R. C., Briggs, A. J., Fink, J. H., and Prest-O-Lite Storage Battery Corporation, manufacture of preformed negative electrodes, (P.), B., 199.
- Benner, R. C., Fink, J. H., and Prest-O-Lite Storage Battery Corporation, manufacture of preformed positive electrode, (P.), B., 199.
- Benner, R. C., Werking, L. C., and Prest-O-Lite Storage Battery Corporation, negative electrode for storage batteries, (P.), B., 22.
- Bennett, C. T., and Salamon, M. S., determination of aldehyde in essential oils, with particular reference to the determination of citronellal in Java citronella oil and citral in lemon oil, B., 68.
- Bennett, C. W., ketazines of lævulic acid and lævulhydrazide, A., 990.
- Bennett, G. M., and Philip, W. G., influence of structure on the solubilities of ethers. I. Aliphatic ethers. II. Cyclic ethers, A., 944.
- Bennett, G. M., and Willis, G. H., steric hindrance in reactions of substituted quinoxalines, A., 1027.
benzyl ether as a cryoscopic solvent, A., 1089.
- Bennett, G. M. See also Bell, E. V.
- Bennett, G. W., and France, W. G., adsorption at crystal-solution interfaces. III. Individual macroscopic ammonium alum crystals grown in the presence of gelatin and dyes, A., 1318.
- Bennett, H. B. See Shohl, A. T.
- Bennett, J. A. J., and Mardles, E. W. J., ionisation and chemical change during slow combustion, A., 137.
- Bennett, J. F., and Hadfield, J., treatment of resins for making varnish, paints, etc., (P.), B., 132.
[portable apparatus for] electrodeposition of metals, (P.), B., 529.
- Bennett, R. See Chattaway, F. D.
- Bennett, R. D., experiments on Geiger ion counters, A., 862.
- Bennett, T. N., and Bickford, C. F., determination of alcoholic extractive in gum benzoin, B., 765.
- Bennett, Inc., production of waterproof paper or paperboard, (P.), B., 188.
production of dispersions, (P.), B., 553.

- Bennewitz, K., specific heat of electrolytes, A., 367.
- Bennhold, H., influence of serum on the diffusion of acid dyes in gelatin gel, A., 127.
- Bennion, F., Plant, H. J., and Clarke, J. B., oven or kiln for firing pottery and other ware, (P.), B., 405.
- Bennis, A. W., furnaces with chain or travelling grates, (P.), B., 216.
- Benrath, A. [with Benrath, H., Beu, W., Clermont, J., Ilieff, N., Kojitsch, S., Pitzler, H., and Schloemer, A.], reciprocal salt pair $\text{MgSO}_4\text{--Na}_2(\text{NO}_3)_2\text{--H}_2\text{O}$, A., 595.
- Benrath, H. See Benrath, A.
- Bensa, F., manufacture of dyes [of the perylene series], (P.), B., 399.
 manufacture of chloroperylenequinones, (P.), B., 666.
 manufacture of highly-chlorinated perylenes, (P.), B., 921.
- Bensa, F. See also Stieger, K., and Zinke, A.
- Bensel, G. E., herbicide, (P.), B., 312.
- Bensing, Le R. P., and Koelliker, G. P., electrolytic rectifier, (P.), B., 199.
- Benson, C. C., p_{H} of fish muscle, A., 1151.
- Benson, I. W., and Denholm, T. D., rotary cylinder drying apparatus, (P.), B., 72.
- Bent, (Miss) B. M. See Lennard-Jones, J. E.
- Bent, H. E., and Hildebrand, J. H., vapour pressure of sodium and caesium amalgams, A., 130.
- Bent, Q., Barnhart, E., Wood, F. W., and Bethlehem Steel Co., treatment of ores, (P.), B., 862.
- Bental, C. See Norris, J. F.
- Benthall, E. C. See Godfrey, (Sir) G. C.
- Benthe, H., L-series of rhemium, A., 451.
- Bentler, H., and Josephy, B., double excitation of upper levels in the mercury atoms by collisions of the second kind, A., 211.
 resonance in collisions of the second kind; sensitised fluorescence and chemiluminescence, A., 459.
- Bentley, G. H., and Appleby, E. G., gas producer, (P.), B., 739*.
- Bentley, J. H., rotary kiln and furnace, (P.), B., 915*.
- Bentley, M., and Packard Motor Car Co., treatment of metal articles, (P.), B., 59.
- Bentley, P., manufacture of a bituminous composition, (P.), B., 220.
- Bentley, W. H., and Riley & Sons, Ltd., J., manufacture of pure sulphur, (P.), B., 748*.
- Bentley, W. H. See also Blythe & Co., Ltd., W., and Riley & Sons, Ltd., J.
- Bentley, W. P., treatment of rock asphalt, (P.), B., 405.
- Benton, A. G., bromocresol green as indicator in the manufacture of grain-curd casein, B., 171.
- Béraneck, J. See Berthoud, A.
- Bérard, P. A. See Riou, P.
- Beraud, A., and Jacquet, G., liquid flow and viscosity meters, (P.), B., 41.
- Berchet, G. See Moureu, C.
- Berckemeyer, H., manufacture of abrasives, (P.), B., 606.
- Berckemeyer, H. See also Martinov, W.
- Berg, L., lithium chloride and its hydrates, A., 602*.
- Berg, O., X-ray spectrum of element 75, A., 223.
- Berg, R., separation and determination of metals by means of 8-hydroxyquinoline. VI. Determination of bismuth, A., 39.
 occurrence of gold in food and organs, A., 1271.
 detection of minute traces of lead in biological material, A., 1292.
 loss of mineral substances from potatoes during ordinary culinary preparation, B., 67.
- Berg, R., and Teitelbaum, M., iodometric determination of selenium, A., 383.
- Bergami, G., action of low temperatures on the crystalline lens, A., 83.
- Bergauer, V., stabilisation of albumins by globulins, A., 839.
- Bergedorfer Eisenwerk A.-G. See Backlund, N. O.
- Bergeim, F. H. See Marshall, J.
- Bergel, F., and Döring, H., Michler's "sulphones," A., 626.
- Bergeon, P., operation and regulation of electric furnaces studied diagrammatically, B., 59.
- Berger, E. See Doerr, R.
- Berger, E. E., function of steam in the lime kiln, B., 50.
- Berger, G., calculation of general, alternating, and *ortho*-effects of substituents, A., 60.
- Berger, G. See also Oliver, S. C. J.
- Berger, H. L., [electron-emission] composition, (P.), B., 612.
- Berger, J., effect of beating on the sizing resistance of paper, B., 851.
- Berger, K. See Hantzsch, A.
- Berger, O. H., cold bituminous paving composition, (P.), B., 750.
- Berger, O. H., and McDonald Construction Co., W. P., cold bituminous paving composition, (P.), B., 672.
- Berger, W. See Berthoud, A.
- Berggren, R. E. L. See Talbot, J. H.
- Bergius, F., distillation and liquefaction of coal, (P.), B., 469.
- Bergl, K., and Dietrich, W., production of cold, (P.), B., 321.
- Bergl, K., and Reitstötter, J., technique of mechanical production of highly disperse solutions of solid substances in the ball-mill, B., 839.
- Berglund, T. See Rawdon, H. S.
- Bergman, A., and Barg, I., relation between urica in blood and saliva, A., 542.
- Bergman, D. J. See Morrell, J. C.
- Bergman, M., Herzog, R. O., and Jancke, W., X-ray spectroscopic examination of a cellobiose anhydride, A., 822.
- Bergman, S. W., affinity between asymmetric ions. I. and II., A., 1039.
- Bergmann, E. See Schlenk, W.
- Bergmann, M., structural-chemical contributions to colloid-chemical problems, A., 124.
 permeability of hide and leather, B., 205.
- Bergmann, M., and Ensslin, H., reduction of saturated by unsaturated amino-acids, A., 774.
- Bergmann, M., and Köster, H., synthesis of dipeptide anhydrides containing arginine, A., 656.
 dissolution and reprecipitation of keratins, (P.), B., 239.
- Bergmann, M., and Ludwig, S., permeability of hide and leather. II. Permeability to gases, B., 794.
- Bergmann, M., and Zervas, L., synthesis of glycoeyamine from arginine and glycine, A., 512.
 synthesis of creatine from sarcosine and arginine; synthesis of methylguanidine, A., 512.
 transformations of peptide substances. XXIII. Histidine; peptide formation by acyl wandering. XXIV. Synthesis of a *dl*-histidylglycine, A., 775.
- Bergmann, M. See also Zervas, L.
- Bergmann Elektricitäts-Werke Akt.-Ges., and Beier, F., electric centrifuge for spinning artificial silk, (P.), B., 854.
- Bergold, M. See Stiehr.
- Bergquist, R., bleaching of sulphite pulp, B., 809.
- Bergstrom, F. W., displacement of metals from solutions of their salts by less electropositive elements. IV. Potassium and sodium ammonoberyllates, A., 493.
 action of liquid ammonia solutions of ammonium salts on metallic beryllium; ammoniated beryllium halides and ammonobasic beryllium salts, A., 493.
 ammonous nitrides. I. Ammonous cobaltous nitride, ammonous aluminium nitride, and stannous imide, A., 494.
- Berkel, W. A. van, thermostats, (P.), B., 563.
- Berkeley, (Earl of), association in liquids, A., 18.
 theory of the upper atmosphere and meteors, A., 147.
- Berkenfeld, E. See Berl, E.
- Berkenheim, A., electronic thermochemistry of inorganic compounds, A., 1191.
- Berkman, A. H., p_{H} value of some Texas soils and its relation to the incidence of certain woody plant species, B., 343.
- Berkmann, I., and Kiprianov, A., analysis of synthetic tannins; technical condensation products of aromatic sulphonic acids, B., 533.
- Berkson, J., and Flexner, L. B., rate of reaction between enzyme and substrate, A., 797.
- Berl, E., manufacture of threads, films, etc. from cellulose derivatives, (P.), B., 744*.
- Berl, E., and Berkenfeld, E., preparation of cellulose nitrate, B., 185.
- Berl, E., and Burkhardt, H., active silicic acids (silica gel), A., 702.
- Berl, E., and Ranis, L., titrations by optical methods with the aid of Löwe's interferometer for liquids, A., 262.
- Berl, E., and Schildwächter, H., pressure extraction of coal with tetralin, B., 353.
 influence on the coking of coal of the extraction of the bitumen content with tetralin under pressure, B., 432.
 determination of free carbon in tars, pitches, etc., B., 434.

- Berl, E., and Schildwächter, H., use of the Endell heating microscope for the examination of solid fuels, B., 554.
- Berl, E., and Schmidt, A., behaviour of cellulose when heated under pressure with water, A., 742.
- Berl, E., Schmidt, A., and Winnacker, K., rapid determination of carbon and hydrogen in organic compounds. II., A., 312.
- Berl, E., and Staudinger, H., elimination of silica from waters containing silicic acid, B., 109.
- Berlandstein, A. See Turski, J. S.
- Berlatzky, A., and Guevara, T., limit of acid taste and hydrogen-ion concentration, A., 443.
- Berliner, J. F. T., conception of polarity derived from physical measurements and its relations to the electronic configuration of aromatic organic compounds, A., 354.
- Berliner, J. F. T., and Hann, R. M., hydrofluorides of organic bases and a study of hydrofluoric acid, A., 1104.
- Berliner, R., Stein, B., Trautner, W., and Grasselli Dyestuff Corporation, glyoxaldianthraquinone compounds, (P.), B., 849*.
- Berlingozzi, S., chemical constitution and rotatory power. II. Acyl derivatives of *l*-asparagine, A., 158.
- arsenical derivatives of quinoline, A., 434, 1146.
- chemical constitution and rotatory power. III., A., 1310.
- Berlingozzi, S., and Migliacci, D., ouabain content of *Accanthera Schimper* from Eritrea, A., 560.
- Berlowitz, M., filter for treating air and other gases, (P.), B., 734.
- Berman, H. See Palache, C.
- Berman, L., parathyroid product, (P.), B., 769.
- Berman, L. See also Buschke, A.
- Bermann and Laufer, L., linear or logarithmic calculation of colour in malt analysis, B., 500.
- Bermejo y Vida, L., micro-analysis, A., 1106.
- Bernal, J. D., complex structure of the copper-tin intermetallic compounds, A., 822.
- Bernard, H. B., and Sinclair Oil & Gas Co., treatment of natural-gas, casing-head, and natural gasolines, etc., (P.), B., 221.
- Bernard, J. L., electric furnace, (P.), B., 235.
- Bernard, J. M., preparation of viscose cellulose compounds, (P.), B., 853.
- Bernauer, C. See Bodnár, J.
- Berndorfer Metallwarenfabr. A. Krupp Akt.-Ges., production of galvanic coatings of varying thicknesses, (P.), B., 374.
- Berner, E., thermochemistry of organic compounds, A., 133.
- errors in the determination of heat of combustion, A., 368.
- Bernhauer, E., determination of tartaric acid in presence of other organic acids, A., 272.
- Bernhauer, K., characterisation of strains of *Aspergillus niger* on the basis of their biochemical behaviour. I. Acid formation by different strains, A., 1164.
- acid production by *Aspergillus niger*. IV. Importance of mycelium development, A., 1164.
- citric acid production by fungi. I. Acid production from various carbon compounds. II. Production of citric acid from gluconic acid, A., 1164.
- Bernhauer, K., and Schön, K., oxidations by *Bacterium xylinum*. I. Formation of dihydroxyacetone from glycerol, A., 1285.
- Bernheim, F., aldehyde oxidase of the potato, A., 550.
- specificity of the dehydrases; separation of the citric acid dehydrase from liver and of the lactic acid dehydrase from yeast, A., 1281.
- Bernheim, F., and Dixon, M., reduction of nitrates in animal tissues, A., 329.
- xanthine oxidase. X. Action of light, A., 329.
- Bernhoeft, K., and General Electric Co., metal compositions [aluminium alloys], (P.), B., 234.
- Bernoulli, W. See Hoz, H.
- Berraz, G. See Fester, G.
- Berry, A. J., and Lowry, T. M. [with Goldstein, (Mrs.) R. R., and Gilbert, F. L.], valency. IX. Molecular structure of thallium salts. (a) Thallium tri-iodide; (b) alkyl derivatives, A., 1070.
- Berry, E. R., Devers, P. K., and General Electric Co., working of quartz, (P.), B., 124.
- Berry, H. R., process for gas making, (P.), B., 560.
- Berry, T. M., and Reid, E. E., alkylation of benzene, toluene, and naphthalene, A., 161.
- Berry, W. A. See Adam, N. K.
- Bert, L., synthesis of benzene hydrocarbons by organomagnesium compounds, A., 279.
- Höben's reaction, A., 404.
- Bert, L., new general synthetic method for the preparation of arylaliphatic aldehydes, A., 521.
- Berth, O., analysis of glycerin by the acetin method, and its sources of error, B., 717.
- Berth, T., determination of water in glycerin for [the manufacture of] dynamite, B., 109.
- Berthelot, A., and Amoureux, G., amount of carbohydrate in antitubercular vaccine B.C.G. of Calmette and Guérin, A., 205.
- Berthelot, C., separation and concentration of minerals by flotation, B., 897.
- Bertho, A., reactions of stable azides, A., 1366.
- Bertho, A., and Holder, F., 1:2:3-triazoles. I. Reaction of aryl azides with hot alcoholic sodium alkoxides, A., 1028.
- 1:2:3-triazoles. II. Behaviour of 1-p-xylyl-1:2:3-triazole-4:5-dicarboxylic acid in the Curtius reaction, A., 1028.
- Berthon, P., and Société de Stearinerie & Savonnerie de Lyon, manufacture of cellulose esters, (P.), B., 48*.
- preparation from starch of esters of higher fatty acids, soluble in hydrocarbons of the aromatic series, (P.), B., 65*.
- Berthon, R., films for colour cinematography, (P.), B., 286.
- Berthoud, A., and Béraneck, J., photochemistry of the halogens; action of bromine on ethyl alcohol, A., 378.
- Berthoud, A., and Berger, W., kinetics of the reaction between iodine and potassium nitrite in light and darkness, A., 484, 1336*.
- new induced reaction: oxidation of potassium nitrite by iodine induced by sodium thiosulphate, A., 486, 1336*.
- action of iodine on phosphorous acid and sodium phosphite, A., 1332.
- Berthoud, A., Briner, E., and Schidlof, A., ebullioscopic paradox, A., 242*.
- Berthoud, A., and Nicolet, G., photochemistry of the halogens; action of bromine on α -phenylcinnamionitrile, A., 378.
- kinetics of the oxidation of hydriodic acid by free oxygen, A., 485*.
- Bertin, C. O., fermentation at constant temperature, (P.), B., 32.
- Bertoni, A. See Di Capua, C.
- Bertram, C. See Mohrenweiser, C.
- Bertram, F., reaction of the blood-sugar to poisons, A., 88.
- Bertram, S. H., immersion fluid, A., 266.
- vaccenic acid; a fatty acid from beef, mutton, and butter fats, A., 1152.
- Bertram, S. H., Steur, J. P. K. van der, and Waterman, H. I., [constitution of] sesamin, A., 1137.
- Bertram, S. H. See also Waterman, H. I.
- Bertrand, G., and Labarre, J., acetolysis of mannocellulose; formation of the new sugars tetramannoholide and pentamannoholide, A., 157, 742*.
- Bertrand, G., and Nakamura, H., importance of manganese to animals, A., 919.
- Bertrand, G., and Nitzberg, G., preparation by the sorbose bacteria of a new reducing sugar with seven carbon atoms, A., 510, 872*.
- ketonic nature of α -glucoheptulose, A., 620.
- α -glucoheptulitol, A., 867.
- Bertrand, G., and Rosenblatt, M., potassium and sodium in seaweeds, A., 1059, 1407*.
- Bertrand, G., and Rosenblatt, (Mme.) M., general presence of sodium in plants, A., 334, 802*.
- Bertrand, G., and Silberstein, L., occurrence of barium and probably strontium in arable earths, A., 336.
- proportion of barium in arable soil, A., 391.
- Bertsch, H. See Böhme A.-G., H. T.
- Bertsch, J. A. See Jaeger, A. O., and Monsanto Chem. Works.
- Bervoets, C. W. M., manufacture of mineral oils from peat, lignite, coal, and other bituminous materials, (P.), B., 738.
- Berzelius Metallhütten Ges.m.b.H., electrolytic recovery of pure tin from impure stanniferous materials, (P.), B., 452.
- Besemann, use of methyl-orange for the detection of free chlorino and chloroamines, A., 1345.
- Besombe, A., analysis of sodium sulphate used in glass manufacture; direct determination of Na_2SO_4 , B., 567.
- Best, R. J., hydrogen electrode vessel useful for solutions of high resistance, A., 1349.
- Best, R. J. See also Pennycuik, S. W.
- Bethe, H., scattering of electrons by crystals, A., 677, 690.
- theory of diffraction of electrons in crystals, A., 1303.
- Bethke, R. M., Bohstedt, G., Sassaman, H. L., Kennard, D. C., and Edington, B. H., comparative nutrient value of the proteins of linseed meal and cotton-seed meal for different animals, A., 1154.

- Bethke, R. M., Zinzalian, G., Kennard, D. C., and Sassaman, H. L., antirachitic properties of cod-liver meals, (P.), B., 727.
- Bethlehem Steel Co. See Bent, Q., Cort, S. J., Keller, A. T., and Shimer, W. R.
- Betjemann & Sons, Ltd., G. See Andrew, H. V.
- Betts, H. F. See Jones, D. C.
- Betts, R. L., and Plant, S. G. P., derivatives of ψ -indoxylspiro-cyclohexane, A., 1140.
- Bettzieche, F., action of Grignard reagent on amino-acids. XIV. Decomposition of amino-alcohols by alkalis, A., 410.
- Bettzieche, F., and Menger, R., action of Grignard reagent on amino-acids. XIII. Phenylserine derivatives, A., 410. hydroxyamino-acids. II., A., 413.
- Betz, K. See Zintl, E.
- Beu, W. See Benrath, A.
- Beumée-Nieuwland, N. See De Vries, O.
- Beumer, H., cholesterol metabolism, A., 546.
- Beuthe, H., behaviour of slow electrons in mercury vapour, A., 213.
- X-ray spectrographic measurements in the L and M series of rhenium, A., 1294.
- collisions of the second kind between molecules; excitation of the Lyman band and non-combination of symmetrical with asymmetrical term systems in the hydrogen molecule, A., 1304.
- Beutler, H., and Póányi, M., "highly attenuated" flames. I., A., 491, 1338*.
- Beutner, R., electromotive action of drugs as cause of their toxicity. II. Chemical nature of the tissue constituents which produce bioelectricity. III. Electromotive action of alkaloids on tissues compared with that on proteins, lipins, and "oils," A., 199.
- Beutner, R., and Nowack Akt.-Ges., preparation of resin, (P.), B., 308.
- Bevan, L. C. See Hinkel, L. E.
- Bevan, R. C. See Hughes, D. R.
- Beveridge, J. B., production of sulphite pulp, (P.), B., 85.
- Beyne, E., determination of "objectionable" sulphur in roasted [zinc] blende, B., 715.
- Bezner, E. See Weigel, O.
- Bezssonoff, N., immediate action of a vitamin [C], A., 556.
- Bezssonoff, N. See also Truffaut, G.
- Bezold, von, preparation of mixed acid, B., 669.
- Bhalla, I. D., Bhatnagar, S. S., and Yajnik, M. A., emulsions with refraction colours, A., 123.
- Bhar, H. G. See Bose, D. M.
- Bhat, Y. N. See Naik, K. G.
- Bhatnagar, S. S., Anand, H. L., and Gupta, A. W., photochemical reactions. III. Influence of polarised radiations on certain photochemical reactions, A., 492.
- Bhatnagar, S. S., and Dhawan, C. L., extension of Langevin's theory of atomic magnetism to molecules constituting electronic isomerides, A., 454.
- Bhatnagar, S. S., Goyle, D. N., and Prasad, M., blue colour of the cuprammonium complex, A., 234.
- Bhatnagar, S. S., Mathur, K. N., and Kapur, P. L., magnetic properties of some substances in the adsorbed state, A., 1311.
- Bhatnagar, S. S., and Mathur, R. N., magnetic susceptibilities of electronic isomerides. II., A., 941.
- Bhatnagar, S. S., Sharma, R. K., and Mitra, N. G., chemical reactions in the electrodeless discharge, A., 972.
- Bhatnagar, S. S., Shrivastava, D. L., Mathur, K. N., and Sharma, R. K., Tesla luminescence spectra of the halogens. I. Iodine, A., 814.
- Bhatnagar, S. S., Shrivastava, D. L., and Mitra, N. C., applicability of Fresnel's law in deducing evidence in favour of surface structure from surface reflectivity, A., 1076.
- Bhatnagar, S. S., and Singh, B., surface tensions and parachors of fused organic substances, A., 355.
- Bhatnagar, S. S. See also Anand, H. L., Bhalla, I. D., and Mathur, K. G.
- Bhatt, L. E., and Watson, H. E., decomposition of alkaline-earth sulphates, B., 296.
- Bhattacharya, A. K., and Dhar, N. R., zinc oxide as a general sensitizer for photochemical reactions, A., 31.
- measurements of velocity, reaction per quantum, and effect of intensity of radiation in reactions between chromic acid and organic acids, A., 378.
- influence of a change of intensity of the incident light on the velocity of certain photochemical reactions, A., 1198.
- Bhattacharya, R., Saletore, S. R., and Simonsen, J. L., synthesis of behenic acid, A., 1355.
- Bhattacharyya, D. K., analysis of the first spark spectrum of sulphur (S⁺), A., 930.
- Bhattacharyya, S. C. See Ghosh, J. C.
- Bhide, B. V., and Watson, H. E., esterification in mixed solvents, A., 250*.
- Bia, G., and De Granville de Bielize, J. E. D., manufacture of phenol-formaldehyde condensation products, (P.), B., 648.
- Bialaszewicz, K., oöplasmic intermicellar fluid, A., 1046.
- Biasotti, A. See McClellan, W. S.
- Bible, C. M., influence of sulphates on the volumetric method for the determination of phosphorus, A., 384.
- Bibus, B. See Müller, Adolf.
- Bichowsky, F. R., generalised Gibbs-Boltzmann equation, A., 1179.
- Bichowsky, F. R., and Copeland, L. C., heat of formation of molecular hydrogen, A., 712.
- Bickel, A., growth-promoting influence of inorganic iron compounds, A., 1275.
- relation of carbon quotient to oxidation quotient of urine, A., 1275.
- Bickenbach, W., and Junkersdorf, P., influence of unphysiological nutrition on the composition of the organs and on metabolism. I. Unbalanced fat diet, A., 918.
- Bickford, C. F. See Bennett, T. N., and Carothers, W. H.
- Bicking, G. W. See Shaw, M. B.
- Biddle, A., treatment of aqueously dispersed colloidal substances, (P.), B., 309.
- Bidwell, C. C., simple relation between thermal conductivity, specific heat, and absolute temperature, A., 1083.
- Bidwell, G. L. See James, L. H., and Munch, J. C.
- Biederbeck, H. See Terres, E.
- Biedermann, E. See Karrer, P.
- Bieler, E. S. See Lane, C. T.
- Bieling, R. See I. G. Farbenind. A.-G.
- Biener, B. See Heiduschka, A.
- Bierbrauer, E. See Luyken, W.
- Bierent, G. See Le Grand, A.
- Bierich, R., and Kalle, K., causes of malignant tumours. V. Cysteine content of normal and tumour tissues, A., 667.
- thiol titrations with iodine-starch and sodium nitroprusside, A., 788.
- Bierry, H., determination of protein-sugar, A., 315.
- hydrolysis of blood-plasma and sugar combined with protein, A., 912.
- sugars of blood and plasma; protein-sugar, A., 1045.
- Bierry, H., and Kollmann, M., mode of action of vitamin-B, A., 676.
- Bierry, H., and Voskressenski, A., micro-determination of free and protein-sugar in blood-plasma, A., 1392.
- Biesalski, E., behaviour of gases in foams, B., 696.
- Biesalski, E., and Eck, H. van, behaviour of calcium carbide towards free halogens and sulphur, A., 852.
- evolution of acetylene from calcium carbide by the action of water, hydrogen sulphide, and hydrogen chloride, in the liquid and gaseous conditions, B., 522.
- Bigelow, C. A. See Shapleigh, J. H.
- Bigelow, F. B., furnace arches, (P.), B., 802.
- Bigelow, L. A., and Eatnough, H., [preparation of] benzylidene-aniline, A., 629.
- Bigelow, N. M. See Conant, J. B.
- Bigelow, S. L., and Trimble, H. M., relation of vapour pressure to particle size, A., 115.
- Bigelow, S. L., and Washburn, E. R., variations in surface tensions of solutions, A., 472.
- Biggs, H. C. See Hyslop, J. F.
- Biggs, H. F., covalency, the paramagnetism of oxygen, and stereochemistry, A., 1310.
- Bigwood, E. J., methods of determining the pH of body fluids, A., 564.
- Bigwood, E. J., and Wuillot, A., nature of the blood-sugar, A., 191.
- protein-blood-sugar, A., 191, 438.
- fermentation of dextrose in blood-plasma by yeast, A., 192.
- reducing and fermentable substances in combination with proteins of the blood-plasma, A., 438.
- so-called protein-sugar of blood-plasma, A., 539.
- unfermentable residue of free blood-sugar, A., 539.
- Bilimann, E., and Klit, A., colloidal palladium as catalyst at the hydrogen electrode, A., 28.

- Billmann, E., Klit, A., and Swaetichin, T., determination of hydrogen-ion concentrations in phosphate and borate mixtures by means of the quinhydrone electrodes, A., 857.
- Bijvoet, J. M., difficulties in the quantitative determination of the scattering power of atoms for incident X-rays, A., 108.
- calculation of crystal structure by means of Fourier's theorem, A., 223.
- Bilicke, C. See Dickinson, R. G.
- Biljcevic, P. See Neumann, B.
- Billen, R. See Enders, A.
- Billeter, O., Rothlin, E., Peyer, J., and Chemische Fabrik vorm. Sandoz, manufacture of easily soluble anaesthetics of the *m*-aminobenzoic acid ester series, (P.), B., 692*.
- Billiet, V., determination of refractive indices of minerals by Becke's immersion method, A., 148.
- refractive index of bequerelite, curite, kasolite, fourmarierite, parsonite, dumontite, and janthinite, A., 150.
- crystals of calcite from Voldelée, A., 1210.
- Billingham, W. E., emulsification of vegetable and animal oils, fats, greases, waxes, etc., (P.), B., 99.
- Billinghurst, R. See Adams, M.
- Billington, C., copper alloys, (P.), B., 757.
- Billington, C. H. See Dine, J. H.
- Billon. See Guichard.
- Billon, F., purification of vaccines, (P.), B., 37.
- Bills, C. E., and Brickwedde, F. G., activation of cholesterol at liquid oxygen temperature, A., 557.
- Bills, C. E., Honeywell, E. M., and MacNair, W. A., antirachitic substances. VII. Purified cholesterol, A., 332.
- Billwiller, J., loosening of vegetable fibres, (P.), B., 11.
- prevention and removal of incrustation in boilers, (P.), B., 72, 214.
- Billy, M., composition of titanium peroxide, A., 495.
- Bilowitski, G. See Schmid, L.
- Biltz, H., [action of cyanogen bromide on dimagnesium acetylene dibromide], A., 43.
- Biltz, H., and Beck, A. [with Lemberg, R.], 8-iodoxanthines. II. Preparation and properties of xanthine. III. Alkylation in the xanthine series. IV. Ethylation of ψ -uric acid, A., 429.
- Biltz, H., and Rakett, H., caffeine and caffeinedicarboxylic acid, A., 906.
- Biltz, M., and Zeigert, H., radioactivity of potassium isotopes, A., 454.
- Biltz, W., jelly formation of eeric hydroxide hydrosol, A., 124.
- compounds of hydrated silica and ammonia, A., 379.
- molecular and atomic volumes. XX. Space occupied by hydrogen in metallic hydrides, A., 936.
- Biltz, W. [with Eschweiler, W., and Bodensiek, A.], molecular and atomic volumes. XVII. Volumes and magnetic properties of solid cyanides, A., 572.
- Biltz, W., and Balz, G., systematic doctrine of affinity. XLVI. Measurement of oscillation of chemical affinity in crystalline dicarboxylic acids, A., 595.
- molecular and atomic volumes. XVIII. Volume of ammonia in crystalline ammonium salts, A., 697.
- Biltz, W., and Fendius, C., molecular and atomic volumes. XIX. Density of the chlorides of uranium, tungsten, and molybdenum, A., 815.
- Biltz, W., and Lehrer, G. A. [with Meisel, K.], elucidation of [the nature of] hydrated alumina by the ammonia extraction method, A., 852.
- Biltz, W., and Rahlfs, E., elucidation of [the nature of] silica hydrates by the ammonia extraction method, A., 854.
- Binaghi, R., action of polyhalogenated compounds of methane and of ethane on magnesium derivatives. IV., A., 43.
- magnesiumurethane. I., A., 50.
- Binaghi, R., and Brundo, A., Sardinian fuels, especially those of the Perdasdefogu basin (Ogliastra). II., B., 433.
- Bincer, H., and Hess, K., chemical constitution of pentaerythritol, A., 504.
- Binckley, G. S., Binckley, S. W., and Binckley, M. J., settling tanks, (P.), B., 430.
- Binckley, M. J. See Binckley, G. S.
- Binckley, S. W. See Binckley, G. S.
- Binder, P., new reserve effects under aniline black [by printing], B., 49.
- brown chromate discharges on indigo, B., 890.
- yellow and orange chromate discharges on indigo, B., 890.
- Binet, L., and Fabre, R., variations in the uric acid content of blood relative to respiratory functions; asphyxial hyperuricæmia, A., 536.
- Bing, F. C. See McCay, C. M., and Shohl, A. T.
- Binney, R. L., and Binney Castings Co., non-ferrous casting [alloy], (P.), B., 373.
- Binney Castings Co. See Binney, R. L.
- Binnie, D., measurement of high temperatures by means of a tungsten-molybdenum thermocouple, B., 915.
- Binnington, D. S. See Munro, L. A.
- Binswanger, F. See International Cement-Gun Co., G.m.b.H.
- Binz, A., and Prange, G., acceleration of the reduction of indigo by pyridine, B., 83.
- Binz, A., and Râth, C., production of organic arseno-compounds, (P.), B., 36.
- preparation of heterocyclic arsenic compounds, (P.), B., 316*.
- preparation of organic arsenic compounds, (P.), B., 427*.
- reduction of arsenic acids, (P.), B., 427.
- production of nitropyridinearsenic acids, (P.), B., 624, 625*.
- manufacture of 3-bromo-2-hydroxypyridine-5-arsinic acid, (P.), B., 769.
- Birch, F., magnetic moments of the cupric ion, A., 940.
- Birch, F. See also Collet, (Mlle.) P.
- Birch, S. F., preparation of butadiene, B., 457.
- Birch, S. F. See also Thole, F. B.
- Birchard, W. H., sulphite cooking, B., 328.
- degradation of cellulose by sulphite acid, B., 329.
- Birkner, V., and Paine, H. S., invertase-free yeasts and their application in the selective fermentation of final cane molasses, B., 461.
- Bircumshaw, L. L., surface tension of liquid metals. III. Surface tension of mercury, A., 1084.
- Bird, E. B., production of gasoline from natural gases, (P.), B., 253.
- Bird, E. H., and Koppers Co., treatment of fuel gas, (P.), B., 116*.
- gas-purification process and apparatus, (P.), B., 252*.
- Bird, F. A., concentrating oxidised ores and minerals, (P.), B., 899.
- Bird, L. F. See Anderson, W. T., jun.
- Bird, M., removal of gums [from sugar juice] by various methods of clarification, B., 539.
- Bird & Co. See Godfrey, (Sir) G. C.
- Birge, E. A., and Juday, C., organic content of the water of small lakes, A., 864.
- Birge, R. T., hydrogen molecule, A., 216.
- quantum levels and resulting constants of the hydrogen molecule, A., 345.
- Birge, R. T., and Christy, A., titanium bands, A., 1304.
- Birge, R. T., and Hopfield, J. J., ultra-violet band spectra of nitrogen, A., 1294.
- theoretical relation between infra-red and ultra-violet bands, A., 1308.
- Birge, R. T. See also Christy, A., and Hopfield, J. J.
- Birk, E., molecular and atomic volumes. XX. Density measurements of iodine chlorides, A., 816.
- [hydrate of cobaltic fluoride], A., 856.
- analytical application of iodine trichloride to oxidation and of sodium formate to reduction, A., 976.
- multinuclear cobaltamines, and method of preparation of the non-electrolyte $[\text{Co}(\text{NH}_3)_5\text{Cl}_2]$, A., 1202.
- Birks, G. See Hickton, R.
- Birmingham Small Arms Co., Ltd., Page, A. R., and Devereux, P. S., [cement for] grinding stones or wheels, (P.), B., 929.
- Birnbaum, H., tempering of hardened steels and influence of silicon and nickel on the process, B., 752.
- Birosel, D. M., alcohol additive products of the bromo-derivative of mixed ethers and bromo-derivative of $\beta\beta$ -diphenoxypropane, A., 167.
- Birr, E. J. See Ulich, H., and Walden, P.
- Birutovitch, S., adsorption of dyes in aqueous solution by carbon, silica gel, and earths, A., 471.
- Birutovitch, S. See also Traube, I.
- Bisbini, B., detection of lactic acid in stomach contents, A., 440.
- Bisch, M., continuous kilns, (P.), B., 264.
- Bischitzky, F., separation of tin from alloys and mechanical mixtures, (P.), B., 412.
- Bischoff, C. See Kopfhammer, J., and Weygand, C.
- Bischoff, F., Blatherwick, N. R., and Sahyun, M., similarity of "glukhorment" and synthalin, A., 794.
- Bischoff, F., and Maxwell, L. C., precipitation of blood-calcium by lead, A., 1269.
- Bischoff, F., Maxwell, L. C., Evans, R. D., and Nuzum, F. R., toxicity of lead compounds, A., 1280.

- Bischoff, G., phosphatides of milk, A., 665.
 Bishop, A. See Elsmore, E. C.
 Bishop, G. H., effects of polarisation on the steel wire-nitric acid model of nerve activity, A., 88.
 Bishop, L. R., composition and estimation of barley proteins, B., 312.
 Bishop, L. R. See also Godwin, H.
 Bishop, O. M., Thompson, M. S., and Du Pont de Nemours & Co., E. I., manufacture of a dye powder, (P.), B., 293.
 Bishop, R. O., and Teik, G. L., samsu from rice, B., 424.
 Bishop, W. B. S., manganese in plants: its importance in plant metabolism, A., 1060.
 Bishop, W. S. See Kemp, A. R.
 Bistrzycki, A., and Niederberger, W., 3:3'-difuchsonyl and related compounds, A., 286.
 Biswas, N. N., and Dhar, N. R., chemiluminescence by oxidation of dyes with ozone, A., 814.
 Biswas, S. C., predicted ionisation potential of radon, A., 680.
 Bito, K. See Matsui, M.
 Bito, S., manganese in the mulberry leaf, A., 802.
 Bitter, G. A. See Benary, E.
 Bjerrum, N., volumetric determination of small amounts of carbonic acid and free ammonia present in distilled water, A., 264.
 Bjerrum, N., and Faurholt, C., basic chromic compounds, A., 35.
 Björkeson, A., X-radiation from gases, A., 819.
 Björkman, C. B., rapid method for determining the degree of digestion of cellulose, B., 47.
 Björlykke, K. O., degree of acidity of Norwegian soils, B., 206.
 Björnstad, J. See Pulsometer Engineering Co., Ltd.
 Björkstet, W. G., treatment of minerals containing aluminium, (P.), B., 815.
 Black, D. H., direct current conductivity of insulating oils, B., 737.
 Black, H. See Munsell, H. E.
 Black, J. C., fractionation of hydrocarbon oils, (P.), B., 81.
 refining of oil, (P.), B., 221.
 Black, J. G., and Duffendack, O. S., Mn II spectrum excited by rare gas ions, A., 566.
 Black, J. G. See also Duffendack, O. S.
 Black, J. W., and Warren, B. J. W., effect of other reducing substances on the determination of sulphur dioxide [in foods], B., 346.
 Black, O. F., and Kelly, J. W., ψ -ephedrine from *Ephedra alata*, B., 172.
 Blackadder, T., treating [waterproofing] leather, (P.), B., 134.
 Blackburn, J., Albrecht, A., and Blackburn, J., method of galvanising, (P.), B., 338.
 Blackburn, K. B., and Thomas, Meirion, use of the bleaching action of chlorine in the rapid detection of fatty oils and the investigation of some other substances and structures of green cells, A., 560.
 Blackett, P. M. S., and Hudson, E. P., elasticity of the collisions of α -particles with hydrogen nuclei, A., 103.
 Blackshaw, H., valuation of protective agents [in wet processes for wool], B., 854.
 Blacktin, S. C., spontaneous electrification in dust clouds (with special reference to coal dust clouds), B., 775.
 Blagden, J. W. See Howards & Sons, Ltd.
 Blagonravona, A. A. See Pamfilov, A. V.
 Blagoveshchenski, A. V., Sosedov, N. I., and Toshechhevikova, A. G., p_H values of plants and corresponding soils, B., 830.
 Blaikie, K. G. See Matheson, H. W.
 Blair, A. W., and Prince, A. L., influence of heavy applications of dry organic matter on crop yields and on the nitrate content of the soil, B., 458.
 Blair, A. W. See also Lipman, J. G.
 Blair, E. W. See Smith, F. E.
 Blair, G. See Sunderland Forge & Engineering Co., Ltd.
 Blair, H. T. See Lueck, R. H.
 Blair, M. W., mechanical introduction of barium into clay bodies, B., 53.
 Blaisdell, W. W., treating oil shales and other bituminous materials, (P.), B., 843.
 Blake, F. C., Lord, J., and Focke, A. E., solid solutions of chromium and nickel and of iron and nickel, A., 1313.
 Blake, F. C. See also Harris, P. M.
 Blake, H. D., Stone, J. E., and General Electric Co., coating for glass surfaces [of incandescence lamps], (P.), B., 760.
 Blake, J. T., reinforcement of rubber by fillers, B., 867.
 Blake, J. T. See also Norris, J. F.
 Blakeley, W., gas condensers, (P.), B., 884.
 Blakeslee, A. F. See Satina, S.
 Blakey, W., Jones, W. I., and Scarborough, H. A., substitution products of 4-hydroxybenzophenone and its methyl ether, A., 66.
 Blakey, W., and Scarborough, H. A., substitution products of 3-nitro- and 3-amino-diphenyl, A., 105.
 nitration and bromination of 4-methylbenzophenone, A., 1246.
 Blamey, P. R., extraction of metals from ores, (P.), B., 676.
 Blanc, A., photo-electric current as a function of the field in air at ordinary pressures, A., 808.
 Blanc, C., tanning by means of condensation products of aldehydes and phenols and their derivatives, B., 828.
 Blanc, G. A., separation of chlorides of aluminium and potassium present in mixed solutions obtained in the treatment of leucite, (P.), B., 158*.
 Blanchetière, A., hydrolysis of egg-albumin by pepsin in relation to the formation of diketopiperazines, A., 139.
 Blanchetière, A., and Mélon, L., determination of glutathione, A., 440.
 occurrence of glutathione in the animal kingdom, A., 1047.
 Blanck, E., determination of the phosphate requirement of soils, B., 279.
 Blanck, E., Giesecke, F. [with Rieser, A., and Scheffer, F.], origin of red soils, B., 458.
 Blanck, E., Giesecke, F., and Keese, H., manurial action of calcium silicate, B., 279.
 potash fertiliser action of a mica waste, B., 279.
 Blanck, E., and Rieser, A., comparative study of the weathering of rocks under different climatic conditions, A., 612.
 extraction of soils by the hydrochloric acid method, B., 421.
 Blanck, E., and Rieser, A. [with Mortensen, H.], soils [and rock weathering] in Spitzbergen, A., 612.
 Blanco, G. W. See Du Pont Rayon Co.
 Blanco, J. G., sugar metabolism; lactose, galactose, and xylose, A., 1398.
 Blanco, J. G. See also Levene, P. A., and Raymond, A. L.
 Blank, F., and Urbach, F., colloidal gold in alkali halide crystals, A., 475.
 Blank, F., and Valkó, E., phenomenon of stratification in electro-dialysis as an electrophoretic phenomenon, A., 833.
 Blank, F. See also Müller, Adolf.
 Blank, I. H. See McLaughlin, G. D.
 Blankart, A., and Hoffmann-La Roche Chemical Works, manufacture of alkyl derivatives of diphenolisin, (P.), B., 516*.
 Blaringheim, A. J. A., and Société Anonyme d'Éclairage et d'Applications Électriques, extraction of krypton and xenon from air, (P.), B., 483*.
 Blaschke, R., treatment of wood with steam for the manufacture of paper, (P.), B., 925.
 Blasdale, W. C., and Robson, H. L., system: water and the sulphates of sodium and magnesium, A., 243.
 Blaser, B. See Traube, W.
 Blaszkowska-Zakrzewska, H., method for measurement of vapour pressure of small quantities of substance; the vapour pressure of chloropicrin, A., 828.
 determination of vapour pressure of chloropicrin at about 100°, A., 829.
 Blatherwick, N. R., Sahyun, M., and Hill, E., effects of synthalin on metabolism, A., 199.
 Blatherwick, N. R. See also Bischoff, F., and Sahyun, M.
 Blatt, A. H. See Conant, J. B., and Kohler, E. P.
 Blau, F., Koret, F., Moers, K., and General Electric Co., preparation of a tungsten filament, (P.), B., 529.
 Blau, M., photographic action of H-particles from paraffin and atomic fragments, A., 810.
 Blé, F. See Sanfourche, A.
 Bleachers' Association, Ltd., Kershaw, W., Barrett, F. L., Whitelegg, C. J., and Sutton, G. D., treatment [mercerisation] of materials containing artificial [regenerated cellulose] silk, (P.), B., 745.
 Bleachers' Association, Ltd. See also Gaunt, R.
 Blechschmidt, E., valve for use with currents of gas, A., 984.
 Blechschmidt, E., and Hippel, A. von, cathodic sputtering. IV. Effect of material and state of cathode on sputtering, A., 1068.
 Blechta, F., and Pátek, K., action of nitric acid and mercury on aromatic hydrocarbons and a few of their derivatives, A., 56.
 Bledsoe, M. S. See Aldrich, M.

- Bleeker, *C. E.*, Raman effect in xylene, A., 1306.
- Bléger, *J.* See Sabetay, *S.*
- Bleining, *A. V.*, solubility of fired [ceramic] bodies in hot sulphuric acid, B., 53.
- Bless, *A. A.*, recoil electrons from aluminium, A., 102.
- Bleyberg, *W.* See Holde, *D.*
- Bleyer, *B.*, and Braun, *W.*, degradation of dextrose by oxidation. III, A., 1220.
- Blicke, *F. F.*, formation of triphenylmethyl peroxide from carbon dioxide and magnesium phenyl bromide, A., 59.
- Blicke, *F. F.*, and Powers, *J. L.*, preparation of pyrrole, B., 82.
- Blicke, *F. F.*, and Smith, *F. D.*, preparation of *p*-iodoanisole, A., 631.
- Blinov, *A. M.*, [non-]effect of splenectomy on the blood-sugar, A., 1270.
- Blish, *M. J.*, standard experimental baking test [for bread]; report of Committee of the American Association of Cereal Chemists, B., 463.
- Blish, *M. J.* See also Ackerson, *C. W.*, and Mussehl, *F. E.*
- Blissett, *A. H.*, and Golding, *J.*, value of small quantities of whole cow's milk when fed to pigs, A., 1397.
- Blix, *G.*, reduction of methylene-blue in hexose-phosphato mixtures, A., 250.
- solubility of cystine in urine, A., 1272.
- Blix, *G.*, and Lowenhielm, *G.*, oxidation of cholesterol by molecular oxygen, A., 1372.
- Blix, *G.*, and Ohlin, *C. A.*, pituitrin and blood-lipins, A., 331.
- Bloch, *E.*, and Karrer, *P.*, primula idiosyncrasy, A., 1153.
- Bloch, *E.*, salt action and diuresis, A., 1051.
- Bloch, *E.* See also Bloch, *L.*
- Bloch, *L.*, effectiveness of eye protection glasses and its characterisation, B., 231.
- Bloch, *L.*, and Bloch, *E.*, spark spectra of chlorine, A., 98.
- spark spectra of chlorine and of bromine, A., 806.
- spark spectra of [sulphur and of] selenium and tellurium, A., 1167.
- Bloch, *L.*, and Frühling, *H. G.*, the unimeter, a new [optical] instrument for chemical industry, B., 657.
- Bloch, *L.*, and Serby, *A. M.*, plasma and corpuscular chlorides in peptic ulcer, A., 544.
- Bloch, *O.*, and Hamer, (*Miss*) *F. M.*, optical and photographic properties of a series of typical cyanine dyes, B., 285.
- Bloch, *R.* See Ephraim, *F.*
- Bloch, *S.* See Offenheimer, *P.*
- Blok, *L.* See De Groot, *W.*
- Blom, *A. V.*, rapid testing apparatus for paint, B., 274.
- colloid-chemical problems [in paint industry], B., 531.
- testing paints, B., 936.
- Blom, *J.*, detection of hydroxylamine, A., 674.
- formation of hydroxylamine by the reduction of nitrates by micro-organisms, A., 674.
- Blomquist, *A. T.* See Marvel, *C. S.*
- Blondeau, *J.*, syntheses with phenyl isopropyl ketone, A., 509.
- Blood, *L. H.* See Nuhn, *H.*
- Bloomfield, *A. L.* See Pollard, *W. S.*
- Bloomfield, *G.*, and Commercial Solvents Corporation, zinc oxide catalysts, (P.), B., 447.
- Bloomfield, *G.* See also Commercial Solvents Corporation.
- Bloor, *W. R.*, determination of small amounts of lipin in blood-plasma, A., 662.
- Blount, *A. L.*, and Bailey, *H. S.*, effect of boiling orange-juice on various metals and alloys, B., 127.
- Bluine Co. See Tarr, *G. W.*
- Blum, *I.*, rational utilisation of Rumanian lignites. II. Attempts to briquette the semi-coke, B., 42.
- determination of elementary oxidisable carbon in solid fossil fuels, B., 468.
- Blum, *L.*, and Broun, *D.*, chlorine and sodium content of organs in uræmia, A., 322.
- Blum, *R.*, thiocyanate content of serum and cerebrospinal fluid, A., 1047.
- Blum, *W.*, and Winkler, *J. H.*, nickel electrotyping solutions, B., 414.
- Blum, *W.* See also Winkler, *J. H.*
- Blumberger, *J. S. P.*, azochromophores. I. and II, A., 996.
- Blumenberg, *H., jun.*, manufacture of filtering material, (P.), B., 3.
- treatment of cracked hydrocarbon distillation products, (P.), B., 7.
- production of aluminium chloride, (P.), B., 13.
- Blumenberg, *H., jun.*, mining of soluble boron compounds, (P.), B., 14.
- Blumenberg, *H., jun.*, and Buley, *A. M.*, cracking of mineral crude oils, (P.), B., 594.
- Blumenberg, *H., jun.*, and Stockholders' Syndicate, manufacture of acid metal phosphate [glass], (P.), B., 232.
- Blumendal, *H. B.* See Jaeger, *F. M.*
- Blumenfeld, *J.*, and Commercial Pigments Corporations, titanium pigment, (P.), B., 457*.
- Blumenstock-Halward, *E.*, and Jusa, *E.*, bathochromic action of the methylthiol group in azo-dyes. I, A., 1371.
- Blumenstock-Halward, *E.*, and Riesz, *E.* [with Bum, *P. G.*], bathochromic action of the methylthiol group in azo-dyes. II, A., 1371.
- Blumenstock-Halward, *E.* See also Pollak, *J.*
- Blumenthal, *H.*, determination of traces of antimony in copper, B., 573.
- Blumentritt, *M.*, behaviour of dilute electrolytes in high field strengths, A., 712.
- Blumentritt, *M.* See also Joos, *G.*
- Blumfeldt, *A.* See Society of Chemical Industry in Basle.
- Blumrich, *K.* See I. G. Farbenind. A.-G.
- Blyth, *C. E.*, and Herbert, Ltd., A., coal pulverising machine, (P.), B., 7*.
- Blyth, *J. F.*, and Ellis, *C.*, manufacture of an arsenical product [insecticide], (P.), B., 29.
- Blythe & Co., Ltd., W., Bentley, *W. H.*, and Catlow, *B.*, purification of sulphur containing bitumen, (P.), B., 91.
- Bobek, *F.* See Hahn, *O.*
- Bobrański, *B.*, and Sucharda, *E.*, synthesis of 2-carboxymethyl-quinoline-3-carboxylic acid and of certain of its derivatives, A., 73.
- centigram elementary analysis. I. Determination of carbon and hydrogen, with automatic regulation of combustion. II. Nitrogen determination, A., 1107.
- Bobtelsky, *M.*, and Kaplan, *D.*, velocity of decolorisation of potassium permanganate by oxalic acid and the influence of other substances in the solution, A., 715.
- Bobtelsky, *M.*, and Malkowa-Janowski, (*Frau*), solubility of magnesium oxalate, and its importance for separation of calcium and magnesium, A., 145.
- Bochov, *K.* See Tammann, *G.*
- Bock, *A. V.* See Dill, *D. B.*
- Bock, *G.*, composition producing yellow smoke, (P.), B., 214.
- Bockmühl, *M.*, Ehrhart, *G.*, and Winthrop Chemical Co., production of alkylated aliphatic nitriles, (P.), B., 922*.
- Bockmühl, *M.* See also I. G. Farbenind. A.-G.
- Bockweg, *H. H.*, manufacture of a substance to be used in laundries, (P.), B., 477.
- Bodansky, *M.*, haemolytic action of inorganic acids; lipid solubility, permeability, and haemolytic action of saturated fatty acids, A., 1270.
- Bode, *H.*, origin of fusain, B., 916.
- Bodensiek, *A.* See Biltz, *W.*
- Bodenstein, *M.*, Hahn, *O.*, Hönigschmid, *O.*, and Meyer, *R. J.*, report of the German Commission on atomic weights. VIII, A., 214.
- Bodenstein, *M.*, and Onoda, *T.*, photochemical formation of carbonyl chloride. III, A., 254.
- Bodey, *M. G.*, Lewis, *H. B.*, and Huber, *J. F.*, absorption and utilisation of inulin in the white rat, A., 196.
- Bodmer, *A.*, and Heberlein Patent Corporation, production of permanent-finish vegetable [fibrous] material; vegetable yarn and fabric with wool-like effects, (P.), B., 364*.
- Bodnar, *G. P.* See Bates, *E. N.*
- Bodnár, *J.*, and Karel, *A.*, determination of small amounts of bismuth in urine and organs, A., 1292.
- Bodnár, *J.*, Röth, *L. E.*, and Bernauer, *C.*, I. Assimilation of formaldehyde. II. Enzymic condensation of formaldehyde to sugar, A., 207.
- Bodnár, *J.*, Röth, *L. E.*, and Tergina, *I.*, determination of the toxic substance in insecticides. IV. Volumetric determination of mercury in seed preservatives, B., 619.
- Bodnár, *J.*, Straub, *J.*, and Nagy, *V. L.*, simple and rapid method for the micro-examination of tobacco. I. Determination of nicotine by micro-titration, B., 546.
- Bodo, *R.*, and Marks, *H. P.*, relation of synthalin to carbohydrate metabolism, A., 547.
- Bodroux, *D.*, condensation of cyclohexene with aromatic hydrocarbons in presence of aluminium chloride, A., 625.

- Böck, F., and Beaucourt, K., sources of error in organic micro-elementary analysis. I. Determination of nitrogen by Dumas' method, A., 978.
- Boedecker, F., preparation of vanillin and isovanillin, (P.), B., 360.
- Boedecker, F., and Riedel Akt.-Ges., J. D., preparation of alkyl ethers of protocatechuic aldehyde, (P.), B., 547.
- Boedecker, A., and Junkersdorf, P., metabolic action of "synthalin" with special reference to the analysis of the organs, A., 670.
- Boedtker, E., Wiger, B., and Aagaard, T., furfuryl and furfurylidene compounds of menthone, A., 183.
- Böeseken, J., derivatives of trichloroacrylic acid. IV. Pentachloropropionic acid. V. Electrolytic dissociation constant; salts, A., 45.
- dislocation theory of catalytic action, A., 486.
- configuration of α -glycols formed by oxidation of ethylene derivatives, A., 734.
- Böeseken, J., and Cohen, (Mlle.) R., configuration of $\beta\gamma$ -butylene glycol, A., 1113.
- Böeseken, J., and Felix, B. B. C., configuration of pentaerythritol, A., 616.
- configuration of pentaerythritol. II. Optically active compounds of pentaerythritol and pyruvic acid, A., 1213.
- Böeseken, J., and Krimpen, J. van, reduction of α -elæostearic acid (Δ^8 -linoleic acid and Δ^8 -oleic acid), A., 736.
- Boege, H., kaolin content of clays, A., 390.
- Boegehold, A. L., and General Motors Research Corporation, heat-resisting alloy, (P.), B., 756.
- Böhm, E., carotting or preparation of hair for making it capable of being fulled or felted, (P.), B., 520.
- chlorination of hair and wool and of articles made therefrom, (P.), B., 520.
- Böhm, E., and Jeglinski, H., preservative action of "nipagin" [methyl *p*-hydroxybenzoate] and its homologues on pharmaceutical preparations, B., 623.
- Böhm, F., mechanical salt-cake furnaces with indirect heat; the Mannheim furnace, B., 190.
- Böhm, V., dyeing apparatus [for hat bodies, etc.], (P.), B., 669.
- Boehm-Werke Akt.-Ges., alteration of the colour of the magnesium flame, (P.), B., 235.
- Böhme Aktien-Gesellschaft, H. T., sulphonation of fatty acids and their esters, (P.), B., 418, 845.
- treatment of fats and oils, (P.), B., 492.
- sulphonation of fats, fatty oils, or fatty acids, (P.), B., 935.
- Böhme Aktien-Gesellschaft, H. T., and Bertsch, H., production of sulphonation products from fats, oils, or their acids, (P.), B., 613.
- rendering higher alcohols soluble in aqueous media, (P.), B., 845.
- Böhrer, K., detection of menstrual blood. II. Menotoxin and yeast fermentation, A., 912.
- Boehringer, A., and Boehringer Sohn, C. H., production of disinfecting agents, (P.), B., 390.
- preparation of acetylene for anæsthetising purposes, (P.), B., 465.
- Boehringer & Söhne G.m.b.H., C. F., and Wilke, E., [preparation of silica gel for] the recovery of gas and vapours from gas mixtures, (P.), B., 297.
- Boehringer & Söhne G.m.b.H., C. F. See also Rothmann, A.
- Boehringer Sohn, C. H., preparation of pure lactic acid, (P.), B., 223.
- Boehringer Sohn, C. H., and Strobel, H., cleansing agent for teeth, (P.), B., 246.
- Boehringer Sohn, C. H. See also Boehringer, A., and Häussler, A.
- Boekelman, A. J., nitrogen content of the bile in diagnosis, A., 915.
- Bömer, A., and Ebach, K., glycerides of fats and oils. XII. Glycerides of lauric and myristic acids, B., 901.
- Boeniger, M., and Chemische Fabrik vorm. Sandoz, diazotisable dyes, (P.), B., 849*.
- Boente, L. See Skita, A.
- Börnstein, E., [Fritzsch's reagent], A., 424.
- constituents of low-temperature tar, B., 250.
- Börnstein, K., metabolism of mammalian tissues in different media. I. Respiration of explantates of rats' hearts, which had grown in the plasma of normal animals and of animals fed on a diet deficient in vitamin, A., 1396.
- Böesch, C., centrifuging of wax [from honeycombs], (P.), B., 792.
- Böttger, W., reaction between atmospheric oxygen and strongly acid iodide solutions, A., 263.
- influence of impurities from glass on the titre of sodium hydroxide, A., 980.
- evaluation of liquor kalii arsenicosi and the fixanal method, B., 586.
- Boettner, R. See Fischler, F.
- Boffey, H. See Tootal Broadhurst Lee Co., Ltd.
- Bogdandy, S. von, and Póányi, M., chemically induced "chain reactions" in mixtures of a halogen with hydrogen or methane, A., 373.
- highly attenuated flames. II. Nozzle flames; increase of light emission with increasing partial pressure of sodium vapour, A., 1339.
- Bogdandy, S. von. See also Póányi, M.
- Bogert, M. T., and Smidh, L., thiazoles. XIV. Synthesis of 2-*o*- and -*m*-aminophenyl-6-methylbenzthiazoles; new isomerides of dehydrothio-*p*-toluidine, and incidental compounds, A., 188.
- interaction of sulphur and *p*-toluidine in presence of litharge: thio-*p*-toluidine and related compounds, A., 406.
- Bogert, M. T., and Stull, A., [preparation of] di-*o*-nitrophenyl disulphide, A., 631.
- Bogin, C., and Commercial Solvents Corporation, nitrocellulose lacquer composition, (P.), B., 164.
- nitrocellulose composition; dibutyl mesotartrate, (P.), B., 376.
- Bogin, C. See also Gabriel, C. L.
- Bogin, C. D., and Simms, C. W., consistency of lacquers, B., 274.
- Bogitch, B., removal of iron [from molten metals], B., 19.
- granulation of slags, B., 57.
- properties of electrolytic nickel, B., 126.
- reduction of oxide ores, B., 607.
- Bogue, R. H. See Hansen, W. C., and Lerch, W.
- Bohn, G. See Drzewina, A.
- Bohner, H., tensile strength and electrical conductivity of recrystallised aluminium wire, and its practical application in rolling the metal, B., 196.
- effect of a short period of annealing on the tensile strength and electrical conductivity of copper, bronze, aluminium, aludur, and aldrey, B., 370.
- shrinkage and surface stresses in hard-drawn copper, aluminium, bronze, aldrey, and aludur wires, B., 754.
- corrosion of aluminium conductor wires, B., 787.
- Bohnoltzer, W. See Riesenfeld, E. H.
- Bohstedt, G. See Bethke, R. M.
- Boidin, A., and Effront, J., making a size or dressing; prepared starch material, (P.), B., 726.
- Boinot, G. See Lematte, L.
- Bois, E., spectrochemical researches on some porphyrins and some compounds of hæmatoporphyrin with iron, A., 345.
- Boise, C. W. See African Selection Trust, Ltd.
- Boissevain, C. H., and Drea, W. F., luminescence excited by X-rays in colloidal alkaline-earth salts, A., 687.
- Boitel, A. See Schiess, H. J.
- Boitel, A. C. See Schiess, H. J.
- Boivin, A., determination of carbamide as dioxanthylcarbamide, A., 1064.
- Boivin, A., and Guillemet, R., analysis of an insulin preparation containing 40 units per mg., A., 675.
- Boivin, R. See Hérissey, H.
- Bojner, G., and Pehrson, A. H., rotary furnaces, (P.), B., 505.
- Bojner, G., Pehrson, A. P., and Pehrson, A. H., heating the charge in rotary furnaces, (P.), B., 430.
- Bokorny, T., colloidal albumin content of living plant cells, A., 335.
- Bolam, T. R., and Desai, B. N., influence of hydrolysed gelatin on the precipitation of silver chromate, A., 126.
- Bolas, B. D., and Henderson, F. Y., effect of increased atmospheric carbon dioxide on the growth of plants. I., A., 801.
- Bolekow, Vaughan, & Co., Ltd., and McLean, M. A., bricks for checker work of blast and other furnace stones and regenerators, (P.), B., 698.
- Boldyrev, A. V. See Boldyrev, V. N.
- Boldyrev, V. N., and Boldyrev, A. V., pancreas as a source of the fibrin ferment in blood, A., 318.
- Bole, G. A. See Vachuska, E. J.
- Bolgar, L., production of a composition of matter [from pitch], (P.), B., 252.
- Bolinder, E. K. See Bolinders Mekaniska Verkstads Aktiebolag, J. & C. G.

- Bolinders Mekaniska Verkstads Aktiebolag, *J. & C. G.*, and Bolinder, *E. K.*, atmospheric gas burners, (P.), B., 844.
- Bollert, *K.*, statistical theory of the transition between two excited states of an atom, A., 570.
- Bolliger, *A.*, influence of purine diuretics on inorganic phosphates of blood and urine, A., 547.
- influence of insulin on the blood- and urine-phosphoric acid, A., 1404.
- Bollman, *J. L.*, Sheard, *C.*, and Mann, *F. C.*, bilirubin content of blood following injections of chlorophyll, A., 912.
- Bollman, *J. L.* See also Wilhelmj, *C. M.*
- Bollmann, *H.*, manufacture of an easily-soluble cocoa powder, (P.), B., 284*.
- Bollmann, *H.*, and Foster, *M. F.*, preparatory treatment of cotton seed [for extraction of oil], (P.), B., 130*.
- purification of phosphatides obtained from oil seeds, (P.), B., 545.
- purification of phosphatides, (P.), B., 728.
- Bolstad, *E.* See Schiemann, *G.*
- Boltensern, *W. von.* See Metallbank & Metallurgische Ges. A.-G.
- Bolton, *E. R.*, recent advances in the hydrogenation of oils, B., 200.
- Bomberg, *P.* See Swiatkowski, *H.*
- Bonaccorsi, *L.*, Californian lemon and orange oils, B., 210.
- characters of essences of aromatic plants cultivated in Calabria, B., 210.
- Bond, *J. D.* See Powers, *E. B.*
- Bond, *W. N.*, and Newton, (*Miss*) *D. A.*, bubbles, drops, and Stokes' law. II., A., 583.
- Bond, *W. R.*, and Gray, *E. W.*, supposed influence of polarised light on the deterioration of digitalis, A., 548.
- Bondi, *H.*, Bondi, *S.*, and Neurath, *O.* (Neurath, *J.*), bearing-metal alloys, (P.), B., 715.
- Bondi, *J.* See Pringsheim, *H.*
- Bondi, *S.* See Bondi, *H.*
- Bone, *W. A.*, combustion of hydrocarbons; hydroxylation and/or peroxidation, A., 960.
- Bone, *W. A.*, Horton, *L.*, and Tei, *L. J.*, chemistry of coal. V. Maturing of coal considered from the point of view of its benzeno-pressure extraction, B., 840.
- Bone, *W. A.*, Newitt, *D. M.*, and Smith, *C. M.*, gaseous combustion at high pressures. IX. Influence of pressure on the "explosion limits" of inflammable gas-air, etc., mixtures, A., 248.
- gaseous combustion at high pressures. XII. Influence of steam and temperature, respectively, on the "explosion limits" of carbonic oxide-air mixtures, A., 1194.
- Bone, *W. A.*, and Townend, *D. T. A.*, flame and combustion, A., 24.
- Bone, *W. A.*, Townend, *D. T. A.*, and Scott, *G. A.*, gaseous combustion at high pressures. XI. Influences of hydrogen and steam on the explosion of carbonic oxide-air, etc., mixtures, A., 1193.
- Bonét-Maury, *P.*, vaporisation of polonium in a vacuum, A., 933.
- Bonewitz, *W.* See Neubauer, *H.*
- Bonhoeffer, *K. F.*, gaseous silicon monoxide, A., 379.
- Bonhoeffer, *K. F.*, and Farkas, *L.*, reaction mechanism of photochemical decomposition of hydrogen iodide, A., 601.
- Bonhoeffer, *K. F.*, and Reichardt, *H.*, thermal dissociation of steam into hydrogen and free hydroxyl, A., 1188.
- Bonino, *G. B.*, and Bottini, *M.*, protein-metal compounds. I., A., 189.
- Bonino, *G. B.*, and Grandi, *A.*, protein-metal compounds. II.-IV., A., 189.
- Bonino, *G. B.* See also Benedicenti, *A.*
- Bonnard, *G.*, treating crepe waste, (P.), B., 782*.
- Bonnell, *D. G. R.*, aluminium hydroxide gels, A., 360.
- Bonnell, *D. G. R.* See also Lloyd, *E.*
- Bonnet, *R.* See Terroine, *E. F.*
- Bonnot, *L. C.* See Barker, *W. M.*
- Bonnot Co. See Hartman, *W. H.*
- Bonot, *A.*, and Cahn, *T.*, determination of arginine, A., 277*.
- Bonot, *A.* See also Cahn, *T.*
- Bonrath, *W.* See Lieske, *R.*
- Bonsor, *S.*, manufacture of bread, biscuits, cakes, and other foodstuffs, (P.), B., 106.
- Booge, *J. E.*, and Du Pont de Nemours & Co., *E. I.*, manufacture of lithopone, (P.), B., 203.
- Booge, *J. E.*, Hanahan, *M. L.*, Koller, *J. P.*, and Du Pont de Nemours & Co., *E. I.*, production of lithopone, (P.), B., 308.
- Boone, *C. E.* See Spence, *D.*
- Boord, *C. E.* See Smith, *A. W.*
- Booth, *D. C.* See Flood, *W. E.*
- Booth, *H. S.* See Schreiber, *N. E.*
- Boothby, *W. M.* See Deuel, *H. J.*, jun.
- Borchard, *E.* See Laqueur, *E.*
- Borchardt, *W. O.*, and New Jersey Zinc Co., deflocculation of colloids, (P.), B., 235.
- concentration of barytes, (P.), B., 333.
- Borchers, *F.* See Borchers Gebrüder Akt.-Ges.
- Borchers Gebrüder Akt.-Ges. and Borchers, *F.*, manufacture of lead arsenate, (P.), B., 816.
- Bordas, *F.*, apparatus used in the distillation of coal, shale, and petroleum products by official methods, B., 433.
- Bordas, *F.*, and Desfemmes, *A.*, dust storms and salt storms, A., 267.
- Bordeiano, *C. V.* See Ionesco-Matiu, *A.*
- Borden, *J. F.*, and Oliver Continuous Filter Co., treatment [clarification] of cane-juice settlings, (P.), B., 207.
- gas separator, (P.), B., 432.
- Borden Co. See Green, *L. B.*
- Bordet, *P.*, action of soluble iron salts on coagulation of blood, A., 439.
- Borelius, *G.*, Johansson, *C. H.*, and Linde, *J. O.*, lattice structure transformation in metallic mixed crystals, A., 822.
- Borelius, *G.* See also Linde, *J. O.*
- Borella, *C.* See Fachini, *S.*
- Borels, *E.* See Lecoultré, *G.*
- Borgeaud, *P.* See Windaus, *A.*
- Borgmann, *J.* See Bureš, *E.*
- Borgström, *L. H.*, densities of liquid elements, A., 942.
- Borgwardt, *E.* See Chemische Fabrik auf Aktien (vorm. *E. Schering*), and Schoeller, *W.*
- Borland, *J. V. K.*, by-product coke oven, (P.), B., 218.
- Bornmuth, *C.* See Schaefer, *C.*
- Born, *M.*, atomic constants and the properties of matter, A., 685.
- theory of the Raman effect, A., 1072.
- Born, *M.*, and Oppenheimer, *R.*, quantum theory of molecules, A., 104.
- Bornemann, nitrogen and carbon nutrition of plants, A., 1407.
- Bornhauser, *O.*, film images resembling drawings, (P.), B., 286.
- Bornkessel, *P.*, refining of mineral oils, etc., (P.), B., 81.
- Bornkessel & Co. m.b.H., drying kilns for ceramic ware, (P.), B., 605.
- Bornstein, *A.*, effect of adrenaline on oxidation processes, A., 331.
- Bornstein, *A.*, and Loewy, *A.*, metabolism of alcohol in man, A., 197.
- Borntraeger, *A.*, organic acids of tomatoes. II., B., 543.
- Borodulin, *M.*, resins in lubricating oils and their action on steel, B., 148.
- "formolite" reaction for testing mineral oils, B., 662.
- use of lubricating greases for preservation of metals, B., 777.
- Borries, *G.*, determination of sucrose by means of alkaline iodine solution, B., 831.
- Borris, *G.* See Wartenberg, *H. von.*
- Borsche, *W.*, and Feske, *E.*, reciprocal exchange of aromatically combined hydroxyl and halogen. III., A., 649.
- bile acids. XIII. Catalytic reduction of ketonic acids of the bile acid group, A., 1008.
- bile acids. XIV. Condensation of dehydrocholic acid with itself and with aromatic aldehydes, A., 1244.
- Boruff, *C. S.*, Vellenga, *S. J.*, and Phelps, *R. H.*, preparation of *o*-tolidine reagent for free chlorine [in water], B., 838.
- Bos, *H. G.*, dispersion electricity. I., A., 266.
- disperso-electricity, A., 960.
- Bosch, *H.* See Küster, *W.*
- Bosch, *W.* See Kolthoff, *I. M.*
- Bose, *D. M.*, magnetism and the structure of some simple and complex molecules, A., 689.
- Bose, *D. M.*, and Bhar, *H. G.*, paramagnetism; magnetic moment of ions of elements of the transition groups, A., 823.
- Bose, *J. P.*, determination of sugar in blood, A., 912.
- Bose, *P. K.*, benzidine rearrangement in heterocyclic series. I., A., 188.
- Bose-Rây, *K. C.* See Rây, (*Sir*) *P. C.*
- Boshovski, *V. N.*, and Danilitschenko, *P. T.*, preparation of hydrogen bromide in the presence of charcoal, A., 719.

- Boss, A. E. [with Hopkins, B. S.], rare earths. XXVI. Purification and at. wt. of erbium, A., 343.
- Bossanyi, (Fr.) I. See Kiss, A. von.
- Bosse, J. von, metallising process [for textiles], (P.), B., 296*.
removing gases from and cleaning the surfaces of metals in vacua by electrical means, (P.), B., 677.
- Bosshard, M. See Zeerleder, von.
- Bossini, R. F. See Maiuri, G.
- Bossuyt, V. See Fosse, R.
- Bost, R. W. See Wheeler, A. S.
- Boström, S., thermochemistry of rubber, B., 649.
- Boswall, R. O., measurement of the viscosity of fluids, A., 984.
- Bosworth, A. W., and Douthitt Engineering Co., manufacture of powdered extract of malted grains, (P.), B., 313.
- Bothamley, R. P., interaction of chlorine and sulphur monochloride; preparation of sulphur dichloride; use of antimony pentachloride as catalyst, A., 139.
- Bothe, W., thermodynamic equilibrium and reciprocal effects in the new gas theory, A., 216.
normal radium solutions, A., 455.
- Bothe, W., and Fränz, H., study of atomic particles with the point-counter, A., 343.
atomic fragments, reflected α -particles, and X-rays generated by α -particles, A., 810.
atomic disintegration with α -rays, A., 1302.
- Botkin, C. W., effect of the constituents of alkali fertilisers and soil amendments on the permeability of certain fine-textured soils under irrigation, B., 329.
- Bots, R. H. See Soc. Anon. Prod. Chim. Coverlin.
- Botschwar, A. A. See Tammann, G.
- Botschwar, D. See Butenandt, A.
- Botsford, C. W., and Odell, W. W., generation of [water]-gas, (P.), B., 806.
- Botson, R., preparation of depilatory substances, (P.), B., 342.
- Botson, R., and Société Industrielle des Applications Chimiques, Société Anonyme, purification of sodium sulphide, (P.), B., 446.
preparation of depilatory substances, (P.), B., 795*.
- Bott, P. A. See Schuette, H. A.
- Bottini, E., behaviour of certain varieties of pears towards cold storage, B., 33.
- Bottini, M. See Bonino, G. B.
- Bottomley, A. C., and Robinson, R., orienting influence of free and bound ionic charges on attached simple or conjugated unsaturated systems. IV. Nitration of toluene- α -sulphonic acid and toluene- α -sulphonyl chloride, A., 51.
- Botvinkin, O. K., decomposition of orthoclase, A., 711.
influence of carbon dioxide under pressure on glass, B., 334.
- Botvinkin, O. K., and Tanchilevitch, A. M., relation between resistance of glass to acids and alkalis, and hydrogen-ion concentration, A., 257.
- Boucherot, P. See Claude, G.
- Bougault, J., and Daniel, L., sulphonyl triazines [ketothiontriazines], A., 308, 775.
- Bougault, J., and Leboucq, J., α - and β -substituted semicarbazides; α -benzylsemicarbazide and β -benzylsemicarbazide, A., 630.
- Bougault, J., and Leroy, (Mlle.) B., determination of synthetic camphor in its pharmaceutical preparations, B., 690.
- Bouillenne, and Dumont, M., determination of bismuth in substances used in the treatment of syphilis, A., 1348.
- Bonis, M., allene hydrocarbons, A., 1112.
- Bouldoires, J., aluminium bronze, B., 196.
- Boulénaz, R. See Gigon, A.
- Bourcart, J. See Denaeyer, M. E.
- Bourcet, P., and Dugue, G., digitin of Nativelle, A., 276.
- Bourcet, P., and Fourton, A., digitalic acid, A., 1062.
- Bourcet, P. See also Perrot, E.
- Bourdais, J., colloidal dispersion of materials in fluids, (P.), B., 321.
- Bourdillon, R. B. See Webster, T. A.
- Bourgin, D. G., kinetics of absorption of ultra-sonic waves, A., 937.
approximation method and application to some HCl bands, A., 1076.
- Bourgognon, J. W. M., and Philips, C. L., treatment of water for household and industrial purposes, (P.), B., 770, 800*.
- Bourguel, M., catalyst for hydrogenation in the cold, and mechanism of this catalysis, A., 28.
- Bourguel, M., ethylenic hydrocarbons obtained by semi-reduction of the corresponding acetylenes, A., 150.
[catalysts for hydrogenation in the cold], A., 359.
phenylpropinenes, A., 626.
- Bourguel, M., and Rambaud, spatial configuration of two *cis-trans*-ethylenic isomerides [β -dimethyl- Δ^7 -hexene- β -diols], A., 989.
catalytic influence of hydrogen ions on the internal dehydration of a *cis*-ethylenic γ -glycol in the presence of water, A., 1353.
- Bourguel, M. See also Auel.
- Bourion, F., and Rouyer, E., ebullioscopic determination of the molecular state of resorcinol in aqueous solutions of sodium chloride, A., 233, 477.
ebullioscopic determination of double salts and complexes in aqueous solution, A., 1185.
- Bourion, F., and Tuttle, C., cryoscopic measurements on aqueous solutions of resorcinol and pyrocatechol, A., 589, 1089.
- Bousquet, E. W. See Sandborn, L. T.
- Boutaric, A., modification of the electric sign of colloids at will, A., 16.
stability of colloidal solutions towards electrolytes, A., 360.
protection of colloidal solutions, A., 360.
- Boutaric, A., and Banès, F., immunity [towards staining] of the granule in colloidal solutions, A., 585.
dyeing of colloidal particles, A., 949.
- Boutaric, A., and Corbet, G., critical solution temperatures and their applications, A., 579.
- Boutaric, A., and Dupin, (Mlle.) M., flocculation produced by mixing two colloidal solutions having particles with opposite signs, A., 235.
precipitation of mixtures of colloids of the same sign, A., 1322.
- Boutaric, A., and Perreau, (Mlle.) G., [refractive] indices of colloidal solutions, A., 123.
analysis of dilute salt solutions from the opacity of fine suspensions obtained from them, A., 474.
peptisation of ferric hydroxide by arsenious acid, A., 476.
adsorption of arsenious oxide by ferric hydroxide, A., 1086.
determination of salts in dilute solution by the opacity of fine suspensions produced in the solutions, A., 1108.
- Boutier, D. See Baume, G.
- Bouvier, M. E., Hugoniot, L., and Société Chimique des Usines du Rhône, preparation of ethylidene diacetate, (P.), B., 740*.
- Bouyoucos, G. J., rapid method for the mechanical analysis of soils, B., 27.
hydrometer method for studying soils, B., 538.
texture and structure of soils as influenced by chemical reagents, B., 582.
making mechanical analyses of soils in fifteen minutes, B., 683.
- Bouzin, O., rotary tubular kilns for treating cement, etc., (P.), B., 405.
- Boving, J. O., apparatus for rarefying gases, (P.), B., 659.
reversing absorption refrigerating apparatus, (P.), B., 734.
- Bovini, F., utilisation of *o*-cresol as a necessary condition for the working-up of medium tar oils, B., 355.
- Bovis, P., wide absorption bands among the halogens, A., 1305.
- Bowater, N. J., vertical intermittent chamber ovens for gas manufacture, B., 76, 436*.
manufacture of water-gas, (P.), B., 437.
- Bowden, F. P., definition of "area" in contact catalysis, A., 1336.
- Bowden, F. P., and Rideal, E. K., electrolytic behaviour of thin films. I. Hydrogen. II. Areas of catalytically active surfaces, A., 1088.
- Bowden, S. T., combined capillarmeter-viscosimeter, A., 501.
- Bowden, S. T., and Jones, W. J., photodecomposition of triphenylmethyl, A., 747.
- Bowen, A. R., and Nash, A. W., vapour-phase oxidation of aromatic hydrocarbons and of petroleum distillates, B., 558.
- Bowen, A. R. See also Nash, A. W.
- Bowen, E. W., manufacture of fuel briquettes, (P.), B., 180.
- Bowen, I. S., series spectra of chlorine, Cl II, Cl III, Cl IV, Cl V, and of Si II, P III, and S IV, A., 210.
life of atomic states and the intensity of spectral lines, A., 337.
series spectra of potassium and calcium, A., 566.
series spectrum of sodium, Na II, A., 807.
- Bowen, R., and Super Coal Process Co., mixing device, (P.), B., 3.
- Bowers, D. W., ore-roasting apparatus, (P.), B., 527.

- Bowker, R. C., and Wallace, E. L., progress report on effects of acids on leather, B., 310.
- Bowmaker, E. J. C., and Cauwood, J. D., detection of selenium in decolorised bottle glasses, B., 192.
- Bowman, J. R., changes in the viscosity of clay slips and glaze suspensions on ageing and by treatment with electrolytes, B., 52.
- Bowman, J. W., mill, (P.), B., 72.
- Boyce, J. C. See Compton, K. T., Russell, H. N., and Smyth, C. P.
- Boyce & Veeder Co., Inc. See Iserman, S.
- Boyd, D. R., and Hardy, D. V. N., introduction of the triphenyl-methyl group into phenols, A., 516.
- Boyd, D. R., and Ladhams, D. E., reaction between diaryloxy-isopropyl alcohols and phosphorus oxychloride in presence of pyridine, A., 270.
- action of magnesium phenyl bromide on methyl *o*-cyano-benzoate: 1:3-diphenyldihydroisindole, A., 1140.
- Boyd, J. I. See Roe, J. H.
- Boyd, T. A. See Campbell, J. M.
- Boydston, R. W., thermo-electric effect in single-crystal bismuth, A., 114.
- Boye, E. See Ziegler, K.
- Boyeldieu, G. See Fleury, P.
- Boykin, R. O., and Vail, N. R., cake former for continuous rotary filters, (P.), B., 431.
- Boylard, E., chemical changes in muscle. I. Methods of analysis, A., 318.
- chemical changes in muscle. II. Invertebrate muscle. III. Vertebrate cardiac muscle, A., 545.
- Boyle, C. See Reilly, J.
- Boynton, H. C., report on metallography, A., 729.
- Boys, C. V., heat interchanger, (P.), B., 734*.
- Bozorth, R. M. See Lowry, H. H.
- Brabbée, A. See Kailan, A.
- Bracaloni, L. See Galamini, A.
- Brace, P. H., and Westinghouse Electric & Manufacturing Co., bimetallic thermostat material, (P.), B., 96.
- thermostatic material, (P.), B., 161, 373.
- [electric] induction furnace, (P.), B., 162, 759.
- Brace, P. H., and Ziegler, N. A., application of a high-vacuum induction furnace to the study of gases in metals, B., 573.
- Bracewell, R. S., and Marvellum Co., dye-printing of fabrics with a free non-repeat design, (P.), B., 480.
- Brachmann, G., determination of the oil content of seeds, B., 902.
- Brachmann, G., and Morosov, A., determination of iodine values by Margosches' method, B., 901.
- Brackelsberg, C., heating of smelting furnaces, (P.), B., 197.
- Bracken, A. F., and Bailey, C. H., effect of delayed harvesting on quality of wheat, B., 462.
- Brackett, F. W., rotary filters or strainers, (P.), B., 248.
- Brackett, F. W. See also Brackett & Co., Ltd., F. W., and Pennell, R. H. L.
- Brackett & Co., Ltd., F. W., and Brackett, F. W., rotary water-screening plant, (P.), B., 176.
- Bradbury, T. F. See Hall, H. C.
- Bradfield, A. E., chlorination of anilides. II. Decomposition of *N*-chloroacetanilide by heat, A., 406.
- Bradfield, A. E., Cooper, L. H. N., and Orton, K. J. P., halogenation of *p*-hydroxydiphenylamine. II. A., 56.
- Bradfield, A. E., and Jones, B., chlorination of anilides. IV. Significance of velocity measurements in relation to the problem of benzene substitution, A., 628.
- Bradfield, A. E., Orton, K. J. P., and Roberts, I. C., chloramines as halogenating agents; iodination by a chloramine and an iodide, A., 629.
- Bradfield, R., coagulation of colloidal clay, A., 361.
- theory of electrodialysis, A., 714.
- inexpensive cell for the purification of colloids by electrodialysis, B., 162.
- Bradfield, R., and Cowan, E. W., effect of hydrogen-ion concentration on the absorption of calcium by a colloidal clay, B., 63.
- Bradfield, R. See also Ettisch, G.
- Bradley, A. J. See Westgren, A.
- Bradley, G. W. J., coal cleaning and its relation to the cost and quality of coke, B., 113.
- use of graphical methods in the control of a coke-oven plant, B., 509.
- Bradley, L., and McKeefe, E. P., manufacture of pulp and paper, (P.), B., 155.
- Bradley, R. S., dissociation of pure mercury, A., 1302.
- Bradley, W., and Robinson, K., interaction of benzoyl chloride and diazomethane; discussion of the reactions of diazenes, A., 759.
- synthesis of pyrylium salts of anthocyanidin type. XVIII. Synthesis of malvidin chloride, A., 894.
- Nierenstein reaction, A., 1009.
- Bradley Pulverizer Co., centrifugal grinding mills, (P.), B., 552.
- Bradley Pulverizer Co. See also Gibson, W. A.
- Bradner, D. B., and Du Pont de Nemours & Co., E. I., impregnation of wood, (P.), B., 159.
- production of basic aluminium sulphate, (P.), B., 447.
- Bradt, W. E., and Lyons, R. E., determination of selenium in organic compounds, A., 436.
- Brady, F. L. See Lea, F. M.
- Brady, O. L., Baker, L. C., Goldstein, R. F., and Harris, S., isomerism of the oximes. XXXIII. Oximes of opianic acid and of phthalic anhydride, A., 520.
- Brady, O. L., Day, J. N. E., and Allam, P. S., dinitroethylbenzenes, A., 626.
- Brady, O. L., and Miller, B. E. M., nitration of benzaldoxime and some derivatives, A., 414.
- Brady, O. L., and Reynolds, G. V., triazole compounds. II. Methylation of 1-hydroxy-1:2:3-benzotriazoles, A., 308.
- Brady, O. L., and Whitehead, A. D., isomerism of the oximes. XXXII. Sulphates, A., 178.
- Bräunlich, F., preparation of mouth washes and dentifrices, (P.), B., 286.
- Bragg, A. O., and International Bleaching Corporation, bleaching of animal and vegetable materials, (P.), B., 331.
- Bragg, W. H., crystal structure of certain aromatic compounds, A., 940.
- Brahn, B., and Weiler, G., distribution of gold in the organs of healthy and tuberculous rabbits following administration of gold preparations. I. Non-tuberculous rabbits, A., 1166.
- Brain, R. T., Kay, H. D., and Marshall, P. C., phosphates in blood and the urinary excretion of phosphates, A., 785.
- Brainard, C. E., pulverisers, (P.), B., 627.
- Brainich, E., tanks for transportation of volatile liquids, (P.), B., 514.
- Brame, J. S. S., and Hunter, T. G., composition of cracked distillates, B., 178.
- Bramley, A., and Haywood, F. W., gaseous cementation of iron and steel. V. Determination of iron-iron nitride eutectoid; action of ammonia on steels containing different concentrations of carbon, B., 784.
- Bramley, A., and Turner, G., gaseous cementation of iron and steel. IV. Action of mixtures of carbon monoxide and ammonia on iron and steel, and its bearing on the process of cementation, B., 784.
- Brammall, A., and Harwood, H. F., temperature-range of formation for tourmaline, rutile, brookite, and anatase in the Dartmoor granite, A., 42.
- Brammann, G. M. See Conant, J. B.,
- Bramwell, F. H. See Synthetic Ammonia & Nitrates, Ltd.
- Brancart, Y., cooling of glass plates and sheets, (P.), B., 265.
- Branch, G. E. K., and Clayton, J. O., strength of acetamide as an acid, A., 840.
- Branche, N. T., design of gas-burning equipment, B., 557.
- Branchen, L. E., Prachel, C. U., and Eastman Kodak Co., reducing the viscosity characteristics of cellulose acetate, (P.), B., 296.
- Branchen, L. E. See also Prachel, C. U.
- Brancourt, L., copper-reducing substances contained in beet-roots and diffusion juice, B., 422.
- Branczik, K. W., cooling towers, (P.), B., 216, 248.
- Brand, J. J. C., and Laing, B., utilisation of pulverulent or powdered carbonaceous materials, (P.), B., 114.
- utilising powdered fuel; utilising pulverulent or powdered carbonaceous material, (P.), B., 219.
- apparatus for combustion of pulverulent or powdered fuel, (P.), B., 807.
- Brand, K. [with Modersohn, A., and Schuck, G.], basic triphenyl-methano dyes, A., 285.
- Brand, K., and Modersohn, A., reduction of aromatic mono- and poly-nitro-compounds, A., 1366.
- Brand, K. See also I. G. Farbenind. A.-G.
- Brandenberger, E., molecular theory of crystal growth, A., 821.

- Brandes, *H.*, simple graphical method for determining the course of the natural distillation process, B., 500.
- Brandl, *A.*, decay of oak-wood, B., 363.
- Brandl, *A.* See also *Strache, H.*
- Brandl, *J.*, carbon dioxide foam in fire extinguishers, B., 878.
- Brandtsma, *W. F.*, reaction velocities. II., A., 247.
- thermoelectric power in cold-worked metals, A., 826.
- Brandt, *D. G.*, and *Doherty Research Co.*, treatment [cracking] of [hydrocarbon] oil, (P.), B., 884.
- Brandt, *L.*, explosions occurring during work with ether containing peroxide, B., 106.
- Brandwood, *J.*, apparatus [bobbin] for the fluid treatment of artificial silk yarns, (P.), B., 259.
- [machines for] the fluid treatment of artificial silk yarns, (P.), B., 365.
- process and apparatus for parti-colour treatment of yarns, (P.), B., 709.
- Brandwood, *J.*, and *Holt, T. W.*, spinning boxes for spinning artificial silk, (P.), B., 331.
- Brandwyk, *M. G.*, *Sclerocarya caffra*, Sond., B., 316.
- Branhofer, *R.*, Apold-Fleissner process of roasting [iron ores in shaft furnaces], B., 54.
- Braniski, *A. I.*, Rumanian kaolins, B., 53.
- Brannon, *J. M.* See *Campbell, M. H.*
- Branscheid, *F.* See *Krollpfeiffer, F.*
- Branscombe, *W. T.*, and *Eveleigh, R. C. L.*, manufacture of primings, varnishes, and paint vehicles, (P.), B., 275.
- Bransky, *O. E.*, and *Standard Oil Co.*, oil-soluble naphthenic compound, (P.), B., 887.
- Branthaver, *M. E.*, and *American Milling & Refining Co.*, liquid treatment [quenching] of roasted ores, (P.), B., 788.
- Branting, *B. F.* See *Brown, R. L.*
- Brasefield, *C. J.*, triatomic hydrogen as an emitter of the secondary spectrum, A., 216.
- magnetic analysis of a luminous canal-ray beam in hydrogen, A., 342.
- spectrum of the hydrogen molecular ion, A., 1295.
- Braselton, *C. H.*, production of white lead, (P.), B., 275.
- Braselton, *C. H.* See also *MacLaren, F. B.*
- Brash, *W.*, lower glycerides of palmitic acid, B., 201.
- Brasi, *E.* See *Scagliarini, G.*
- Brass, *K.*, mode of origin of colours [in dyeing]. II. Absorption of simple aromatic compounds by cellulose, B., 85.
- Brass, *K.*, and *Albrecht, F.*, diazides of anthraquinone, A., 763.
- Brass, *K.*, and *Frei, J. K.*, adsorption of simple aliphatic compounds by cellulose, A., 944.
- Brass, *K.*, and *Sommer, P.*, condensation of formaldehyde with arylides of 2 : 3-hydroxynaphthoic acid, A., 755.
- Brass, *K.*, and *Torinus, G.*, adsorption of leuco-dyes by cellulose, A., 945.
- Brassert, *H. A.*, washing or cleaning of gas, (P.), B., 437.
- Brauchli, *E.*, and *Cloetta, M.*, influence of allyl groups on the pharmacological action of various amines, A., 548.
- Brauckmeyer, *R.*, degreasing of raw wool, (P.), B., 400.
- Braun, *A.*, baking value of flour, B., 208.
- Braun, *C. F.*, heat-exchange apparatus, (P.), B., 352, 801.
- [oil] evaporator, (P.), B., 358.
- Braun, *E.* See *Freudenberg, K.*
- Braun, *H.* See *Pringsheim, H.*
- Braun, *J. von*, relative ease of formation of rings. II., A., 416.
- Braun, *J. von*, and *Anton, E.*, odour and molecular asymmetry. IV. The three 3 : 5-dimethylcyclohexanones and the four 3 : 5-dimethylcyclohexanols, A., 179.
- Braun, *J. von*, *Bayer, O.*, and *Cassel, L.*, relative ease of formation of rings. I., A., 174.
- Braun, *J. von*, *Bayer, O.*, and *Fieser, L. F.*, catalytic hydrogenation under pressure in presence of nickel salts. XII. Alkylated anthraquinones, A., 292.
- Braun, *J. von*, *Haensel, W.*, and *Zobel, F.*, the dicyclic 2 : 6-methylenepiperidine, A., 897.
- Braun, *J. von*, and *Heymons, A.*, constitution of isocampholic acid, A., 753.
- Braun, *J. von*, *Jostes, F.*, and *Wagner, Hans*, rupture of the six-carbon chain of adipic acid. II., A., 1115.
- Braun, *J. von*, and *Kühn, M.*, Friedel-Crafts' reaction with non-aromatically combined hydrogen, A., 161.
- unsaturated residues in chemical and pharmacological relationship. VI., A., 163.
- Braun, *J. von*, and *Münch, W.* [with *Deusser, E.*], dicyclic hydro-aromatic and cyclopentane lactones, A., 1132.
- Braun, *J. von*, and *Rath, E.*, benzopolymethylene compounds. XIV. Syntheses of tetracyclic compounds and of pyrene, A., 760.
- Braun, *J. von*, and *Teuffert, W.*, perylene, A., 770.
- Braun, *L.*, adsorption of phenol-red by the blood of animals, A., 911.
- Braun, *P.*, production of [coloured] photographic prints on cellulosic materials [cotton fabrics], B., 480.
- Braun, *W.* See *Bleyer, B.*
- Braunbek, *W.*, reticular-plane contraction at crystal surfaces, A., 822.
- Braune, *H.*, and *Knoke, S.*, dissociation of ammonium chloride vapour, A., 829.
- Brauner, *B.*, oxide of fluorine or fluoride of oxygen? A., 35.
- Brauner, *M.* See *Kofler, L.*
- Braunholtz, *W. T. K.*, and *Briscoe, H. V. A.*, correlation of physical and chemical properties of coles with their value in metallurgical processes. I., B., 432.
- Braunkohlen-Produkte Akt.-Ges., preparation of cresols and other hydroxylated benzene compounds from creosote liquors, (P.), B., 224.
- Brauns, *D. H.*, optical rotation and atomic dimension. VII. Halogeno-hepta-acetyl derivatives of gentiobiose, A., 157.
- Brauns, *H.*, newer measurements in the *L*-series of X-ray spectra, A., 938.
- Braunsdorf, *O.*, *Holzappel, E.*, *Nawiasky, P.*, and *Grasselli Dye-stuff Corporation*, halogen derivative of the benzanthrone series, (P.), B., 635*.
- Braunsdorf, *O.* See also *I. G. Farbenind. A.-G.*
- Braunstein, *A. E.* See *Engelhardt, W. A.*
- Brause, *G.* See *Matthes, H.*
- Brause, *W.* See *Grube, G.*
- Bravo, *G. A.*, utilisation of poplar bark as tanning material, B., 205.
- Bray, *M. W.*, and *Peterson, C.*, pulping flax straw. III. Hydrolysis and delignification with sodium hydroxide and with a mixture of sodium hydroxide and sodium sulphide, B., 185.
- Bray, *R. H.*, apparatus for measuring the hydrogen-ion concentration of the soil, B., 381.
- Bray, *U. B.*, and *Kirschman, H. D.*, potentiometric determination of indium, A., 38.
- Bray, *W. C.*, and *Livingston, R. S.*, rate of oxidation of hydrogen peroxide by bromine and its relation to the catalytic decomposition of hydrogen peroxide in a bromine-bromide solution, A., 848.
- Breazeale, *J. F.*, alkali tolerance of plants considered as a phenomenon of adaptation, A., 93.
- vitamin-like substances in plant nutrition, A., 801.
- toxicity of salines that occur in black alkali soils, B., 536.
- Breazeale, *J. F.*, and *McGeorge, W. T.*, sodium hydroxide rather than sodium carbonate the source of alkalinity in black alkali soils, B., 536.
- Breazeale, *J. F.* See also *McGeorge, W. T.*
- Brebeck, *C.*, adulterated spirits and the Micko distillation, B., 462.
- Breckenridge, *G. F.* See *Crowell, R. B.*
- Bredereck, *H.* See *Helferich, B.*
- Bredig, *G.*, and *Koenig, A.*, electrical synthesis of hydrazine, A., 854.
- Bredig, *M. A.*, anomalous dispersion of alkali halide phosphors, A., 348.
- Bredo-Weustenraad, *E.*, acceleration of fermentation processes, (P.), B., 208.
- Bredt, *J.*, and *Pinten, P.* [with *Germar, H.*, *Lieser, T.*, and *De Greiff, H.*], oxidation products of camphane, fenchane, and camphenilane derivatives with chromic acid, A., 645.
- Breed, *R. S.* See *Pederson, C. S.*
- Breedlove, *C. H.* See *Heller, V. G.*
- Breese, *J. L., jun.*, [oil burner for] combustion of hydrocarbons, (P.), B., 780.
- Brégeat, *J. H.*, recovery of volatile solvents, (P.), B., 293*.
- manufacture of potassium carbonate and other potassium salts, (P.), B., 333.
- purifying gases and gaseous mixtures, (P.), B., 842.
- Bregeat Corporation of America. See *Runge, W.*
- Brehme, *T.*, and *Lepski, E. M.*, determination of phosphate in a few drops of serum, A., 540.
- Brehme, *T.* See also *György, P.*
- Breit, *G.*, interpretation of Dirac's theory of the electron, A., 1170.

- Breit, G., explanation of long life of metastable atoms, A., 1301.
magnetic moment of the electron, A., 1301.
- Breit, G., and Tuve, M. A., production and application of high voltages in the laboratory, A., 501.
- Brekke, V. See Outhouse, J.
- Brémond, E. See Fabre, J. H.
- Brenans, P., and Girod, C., bromiodophenols produced from 5-bromo- and 3:5-dibromo-salicylic acids, A., 631.
chloriodophenols obtained from 5-chloro- and 3:5-dichloro-salicylic acids, A., 879.
tri-iodophenol from 5-iodo- and 3:5-di-iodo-salicylic acid, A., 879.
- Brendel, C. See Spengler, O.
- Brenck, H. See Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., and Rothe, F.
- Brenner, W., do soils become more acid on drying? B., 618.
- Brentano, J., atomic scattering power for X-rays from powders of gold, silver, and aluminium for Cu-K α radiation, A., 939.
- Breslauer, J., Goudet, C., and Société d'Études Chimiques pour l'Industrie, manufacture from cyanamide of manures containing soluble organic nitrogen, (P.), B., 102.
- Bresler, F. See Eucken, A.
- Bressel, M. See Adler, A.
- Breteau, P., cocaine and MacLagan's test, B., 387.
- Bretnütz, A., and Pensa, A., reduction of nitro-derivatives with iron and soluble chlorides, A., 282.
- Bretscher, E., Rule, H. G., and Spence, J., optical activity and polarity of substituent groups. IX. Menthyl esters of methoxynaphthoic and of diphenyl-2-carboxylic acids, A., 884.
- Bretscher, E. See also Ebel, F.
- Bretschneider, H. See Späth, E.
- Brettmon, J., illuminating tubes, (P.), B., 129.
- Breüllé, H. See Marcotte, E.
- Breuning, E., recovery of nickel from compound sheets of copper and nickel, (P.), B., 412.
- Breuning, E., and Schneider, O., production by electrolysis of thin superposed nickel sheets and separation of them one from another, (P.), B., 198.
- Brewer, A. K., electrodynamics of surface catalysis, A., 968.
- Brewer, C., manufacture and treatment of lubricating grease for use with grease guns, etc., (P.), B., 438.
- Brewer, F. M., germanium. XXIV. Dihalides of germanium, tin, and lead, A., 33.
- Brewer, F. M. See also Papish, J.
- Brewin, A., and Turner, E. E., comparative reactivities of some chloro-, bromo-, and iodo-nitrobenzenes; mechanism of activation of halogen atoms by a nitro-group present in the same aromatic nucleus, A., 402.
- Brewster, O. C., and Sharples Specialty Co., refining [centrifugal separation of] lubricating oils, (P.), B., 45.
- Brewster, O. C., and Standard Oil Co., apparatus for converting hydrocarbon oils, (P.), B., 884.
- Breyer, B. See Pfeiffer, P.
- Breyer, F. G., Bunce, E. H., and New Jersey Zinc Co., vertical zinc retort, (P.), B., 789.
- Breyer, F. G., Bunce, E. H., Weikel, J. H., and New Jersey Zinc Co., zinc oxide [for rubber compounding], (P.), B., 367*.
- Breyer, F. G., Farber, C. W., and New Jersey Zinc Co., compounded rubber, (P.), B., 62.
- Breyer, F. G. See also New Jersey Zinc Co., and Singmaster, J. A.
- Bricker, F., inflammation. V. Acetone compounds in the blood of inflamed tissue, A., 667.
- Bricker, F., and Suponitzka, F., inflammation. III. Carbohydrate metabolism of the inflamed tissue in initial stages of injury, A., 543.
change of the acid-base equilibrium in inflamed tissue, A., 1048.
- Brickwedde, F. G. See Bills, C. E.
- Bricout, P., energy of radiation excited by electronic bombardment, A., 932.
- Bridel, M., Charaux, C., and Rabaté, G., ameliaroside, a new glucoside from *Amelanchier vulgaris*, Moench, A., 992, 1224.
- Bridel, M., and Desmarest, (Mlle.) M., extraction of amygdalin and emulsin from bitter almond cake, A., 201, 671.
properties of emulsin prepared 23 years ago, A., 1157, 1401*.
rate of dissolution of essential principles during percolation. I. Press cake from bitter almonds B., 388.
rate of dissolution of essential principles during percolation. II. Extraction of raffinose from cotton-seed cake, B., 491.
- Bridel, M., and Desmarest, (Mlle.) M., conservation of the characteristics of emulsin of almonds, B., 729, 913*.
- Bridel, M., and Grillon, (Mlle.) S., methyl salicylate glucoside of *Gaulltheria procumbens*, L., identical with monotropitin, A., 1224.
- Bridel, M., and Picard, P., salicylic acid primeveroside, A., 424, 644*.
- Bridgeman, O. C., dew points of air-gasoline mixtures from distillation curves, B., 700.
- Bridgford, T. E. See Gibbons Bros., Ltd.
- Bridgman, J. A., constants of nitrocellulose solvents, B., 275.
- Bridgman, P. W., photo-electric effect, A., 213.
linear compressibility of thirteen natural crystals, A., 466.
photo-electric effect and thermionic emission, A., 682.
viscosity of mercury under pressure, A., 1316.
compressibility and pressure coefficients of resistance of ten elements, A., 1316.
- Bridgewater, E. R., and Du Pont de Nemours & Co., E. I., manufacture of coloured vulcanised rubber, (P.), B., 377.
- Briefer, M., and Cohen, J. H., pure food gelatin; physical properties related to economy of manufacture, B., 722.
- Brier, J. C., and Wagner, A. M., laboratory apparatus for preparing duplicate uniform paint, varnish, and lacquer films, B., 647.
- Briers, F., and Chapman, D. L., influence of intensity of illumination on velocity of photochemical union of bromine and hydrogen, and determination of the mean life of a postulated catalyst, A., 970.
- Brigaudet, M. See Carpentier, G.
- Briggs, A. J. See Benner, R. C.
- Briggs, D. R., determination of the ζ -potential on cellulose, A., 713.
measurement of the electrokinetic potential on proteins by the streaming potential method, A., 1193.
- Briggs, G. E., and Petrie, A. K. H., application of the Donnan equilibrium to the ionic relations of plant tissues, A., 1059.
- Briggs, G. H., velocities of α -particles from radium-C, thorium-C and -C', A., 569.
- Briggs, L. H., and Short, W. F., aromadendrene. I., A., 1254.
- Briggs, S. H. C., [absorption spectra of] potassium ferro- and ferri-cyanides, A., 1304.
- Briggs, T. R., and Rhodes, F. H., de-inking of paper, B., 48.
- Brightman, R. See British Dyestuffs Corporation, Ltd.
- Brightmore, J., fixation of atmospheric nitrogen, (P.), B., 192.
- Brigl, P., Held, R., and Hartung, K., proteins. IV. Hypobromite reaction with amino-acid derivatives, A., 659.
- Brill, R., X-ray examination of iron nonacarbonyl, Fe₂(CO)₉, A., 108.
crystal lattice of lithium nitride, Li₃N, A., 108.
structure of iron nitride, Fe₃N, A., 940.
- Brill, R., and Mark, H., X-ray investigation of the decomposition of complex iron cyanides, A., 711.
- Brindle, H., determination of morphine when present in small quantities, B., 35.
- Briner, E., industrial future of the fixation of nitrogen as oxide by the electric discharge, B., 640.
- Briner, E., and Agathon, O., additive compounds of phenols and ammonia. III. System phenol-ammonia, A., 1238.
- Briner, E., and Mori, A., additive compounds of phenols and ammonia. IV. Ammoniation of naphthols, dihydroxybenzenes, hydroxybenzoic acids, hydroxyanthraquinones, dihydroxyanthraquinones, and *o*-nitrophenol; heats of ammoniation, A., 1238.
- Briner, E. See also Berthoud, A.
- Bringhenti, P., concentration of incrusting or corrosive solutions, (P.), B., 734*.
- Brinjes & Goodwin, Ltd., Stewart, R., and Seaman, C. F. N., rotary vacuum filters, etc., (P.), B., 658.
- Brinjes & Goodwin, Ltd., and Titterton, F., rotary vacuum filters, etc., (P.), B., 553.
- Brink, L. R., and Barnhart Bros. & Spindler, metal alloy, (P.), B., 528.
- Brink, W., cracking of [mineral] oils, (P.), B., 80.
- Brinkman, R., and Buytendyk, F. J. J., micro-determination of the p_H of blood using an antimony electrode, A., 1391.
- Brinkworth, D. J. T. See Dickens, F.
- Brinley, F. J., and Baker, R. H., factors affecting toxicity of hydrocyanic acid to insects, B., 656.
- Brintzinger, H., dialysis. I. Law of decrease in dialysis. II. Course and rate of dialysis as a function of the "specific surface," A., 121.

- Brintzinger, H., and Brintzinger, W., use of volcanic ash for the preparation of hydraulic cement, B., 125.
- Brintzinger, H., and Rodis, F., potentiometric analysis of binary, ternary, and quaternary tin alloys, B., 488.
- Brintzinger, H., and Trömer, B., dialysis. III. Temperature coefficient of dialysis, A., 833.
- Brintzinger, W. See Brintzinger, H.
- Briscoe, E. F., and Plant, S. G. P., carbazole-1-carboxylic acid, A., 1024.
- Briscoe, H. V. A., and Peel, J. B., preparation and properties of selenophen and certain halogen derivatives of selenophen, A., 1021.
- Briscoe, H. V. A., Peel, J. B., and Robinson, P. L., method of preparing selenophen, A., 1267.
- Briscoe, H. V. A. See also Braunholtz, W. T. K., Madgin, W. M., and Peel, J. B.
- Briskin, O. M. See Dychno, M. A.
- British Alizarine Co., Ltd., Dawson, W. H., and Beghin, P., production of dyes from benzanthrone, (P.), B., 83.
- British Alizarine Co., Ltd., Dawson, W. H., Soutar, C. W., and Anderson, J., production of benzanthrone and their derivatives, (P.), B., 225.
- British Alizarine Co., Ltd. See also Barnard, C. M.
- British Aluminium Co., Ltd. See Gwyer, A. G. C.
- British Arca Regulators, Ltd., and Lindsay, T., conditioning of gaseous fluids such as air, (P.), B., 216.
- British Arkady Co., Ltd., Whympere, R., and Hewitt, H., manufacture of fermenting products, (P.), B., 501.
- British Celanese, Ltd., [weighting of] cellulose [acetate] fibres, fabrics, and articles, (P.), B., 228.
- stripping of dyestuffs or colours from dyed or coloured [cellulose acetate silk] materials, (P.), B., 260.
- treatment of fibres, fabrics, etc., made of or containing cellulose derivatives, (P.), B., 477.
- manufacture or treatment of cellulose esters, (P.), B., 520.
- treatment of yarn packages with liquids and products obtained thereby; [effect dyeing, etc., of cellulose ester or other materials in the form of tightly-wound yarn], (P.), B., 745.
- application of cellulose esters and ethers, and products thereby obtained, (P.), B., 782.
- treatment of fabrics or articles containing fibres or threads of organic derivatives of cellulose, (P.), B., 811.
- manufacture of thermoplastic materials, (P.), B., 853.
- [supports for] fluid treatment of fabrics, (P.), B., 926.
- British Celanese, Ltd., and Bader, W., saponification of esters of organic acids, (P.), B., 223.
- British Celanese, Ltd., Cope, E. C., and Kinsella, E., [vibration-damping] bearings, and applications thereof [for textile spindles], (P.), B., 854.
- British Celanese, Ltd., Dickie, W. A., and Martin, R., apparatus for the manufacture of [twisted] yarns or threads, (P.), B., 445.
- British Celanese, Ltd., Dreyfus, H., and Bader, W., manufacture of aliphatic acid anhydrides, (P.), B., 921.
- British Celanese, Ltd., Dreyfus, H., and Ellis, G. H., treatment [weighting] of materials made with or containing cellulose derivatives, (P.), B., 330.
- British Celanese, Ltd., Dreyfus, H., and Haney, C. I., treatment [concentration] of [dilute] lower aliphatic acids, (P.), B., 223.
- cellulosic materials and products obtained therefrom, (P.), B., 444.
- manufacture of aliphatic [acetic] anhydrides, (P.), B., 921.
- British Celanese, Ltd., Dreyfus, H., and Vader, W., manufacture of oxygen-containing carbon compounds, (P.), B., 223.
- British Celanese, Ltd., and Ellis, G. H., treatment of fabrics [containing cellulose esters or ethers], (P.), B., 85.
- mordanting and colouring of materials containing cellulose derivatives [cellulose esters and ethers], (P.), B., 86.
- dyeing, printing, or stencilling of materials containing cellulose esters, (P.), B., 229.
- British Celanese, Ltd., Ellis, G. H., and Olpin, H. C., dyeing, etc., of materials containing cellulose esters or ethers, (P.), B., 926.
- British Celanese, Ltd., Ellis, G. H., Olpin, H. C., and Miller, W. B., dyeing, printing, or stencilling of materials containing cellulose acetate, (P.), B., 156, 189.
- British Celanese, Ltd., and Kinsella, E., [pumping] apparatus for use in manufacture of artificial silk, etc., (P.), B., 638.
- apparatus [measuring pumps] for use in the manufacture of artificial silk or other operations in which liquids are supplied under pressure, (P.), B., 811.
- British Celanese, Ltd., and Olpin, H. C., dyeing, printing, and stencilling of materials containing cellulose derivatives, (P.), B., 304.
- British Celanese, Ltd., Rivat, G., and Cadgène, E., mordant dyeing of materials containing cellulose esters and ethers, (P.), B., 744.
- mordant dyeing of cellulose derivatives [esters and ethers], (P.), B., 891.
- British Celanese, Ltd., and Welch, S. A., manufacture [twisting and winding] of artificial silk threads and apparatus therefor, (P.), B., 638, 811.
- British Drug Houses, Ltd., and Carr, F. H., production of oils containing vitamins, (P.), B., 455.
- British Drug Houses, Ltd. See also Ellis, H. A.
- British Dyestuffs Corporation, Ltd., and Baddiley, J., dyeing [regenerated cellulose materials], (P.), B., 49, 402.
- application of azo-dyes [to regenerated cellulose silks], (P.), B., 189.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Brightman, R., and Chorley, P., dyeing [regenerated cellulose material], (P.), B., 855.
- British Dyestuffs Corporation, Ltd., Baddiley, J., and Chapman, E., manufacture of absorbent materials, (P.), B., 41.
- manufacture of wetting-out agents, etc., (P.), B., 50.
- detergent, cleansing, and polishing compositions, (P.), B., 236, 647.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Chorley, P., and Brightman, R., new secondary disazo-dyes [for viscose silks], (P.), B., 118.
- dyeing [regenerated cellulose silks] with azo-dyes, (P.), B., 121.
- dyeing of artificial [viscose] silk, (P.), B., 401.
- azo-dyes and their application, (P.), B., 741.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Chorley, P., and Butler, C., dyeing of artificial silk, (P.), B., 122*, 402*.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Dootson, P., Shepherdson, A., and Thornley, S., manufacture of new [vat and acid] dyes, (P.), B., 517.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Shepherdson, A., and Hailwood, A. J., readily dispersible dye preparations, (P.), B., 516.
- British Dyestuffs Corporation, Ltd., Baddiley, J., Shepherdson, A., and Thornley, S., manufacture of benzanthrone derivatives, (P.), B., 923.
- British Dyestuffs Corporation, Ltd., and Brightman, R., new azo-dyes and their application, (P.), B., 704.
- British Dyestuffs Corporation, Ltd., Brightman, R., and Chorley, P., new azo-dyes, (P.), B., 781.
- dyeing of regenerated cellulose silk, (P.), B., 782.
- British Dyestuffs Corporation, Ltd., Bunbury, H. M., Evans, H., and Shepherdson, A., manufacture of vat dyes, (P.), B., 518.
- British Dyestuffs Corporation, Ltd., Bunbury, H. M., and Shepherdson, A., manufacture and application of aroylating agents, (P.), B., 704.
- British Dyestuffs Corporation, Ltd., and Chapman, E., preparation of foams for fire extinction, (P.), B., 467.
- British Dyestuffs Corporation, Ltd., Cliffe, W. H., Linch, F. W., and Rodd, E. H., production of derivatives of diaryl ketones, (P.), B., 474.
- British Dyestuffs Corporation, Ltd., and Coffey, S., fuels for internal-combustion engines, (P.), B., 357.
- manufacture of metal derivatives of β -diketones, (P.), B., 474.
- British Dyestuffs Corporation, Ltd., Cronshaw, C. J. T., and Naunton, W. J. S., manufacture of vulcanised rubber and materials for use therein, (P.), B., 101.
- British Dyestuffs Corporation, Ltd., Davidson, A., and Shepherdson, A., manufacture of vat dyes [of the anthraquinone series], (P.), B., 781.
- British Dyestuffs Corporation, Ltd., Everatt, R. W., and Rodd, E. H., separation of mono- and di-alkylarylamines, (P.), B., 474*.
- British Dyestuffs Corporation, Ltd., Fairbrother, T. H., and Renshaw, A., manufacture of leather dressings, (P.), B., 420.
- British Dyestuffs Corporation, Ltd., and Hailwood, A. J., manufacture of a solubilised vat dye and dyeing therewith, (P.), B., 83.
- manufacture of artificial textile fibres, (P.), B., 85.
- [mercerisation, etc., of] natural vegetable fibre, (P.), B., 121.
- manufacture of new derivatives from ligninsulphonic acid (sulphite-cellulose waste), (P.), B., 360.

- British Dyestuffs Corporation, Ltd., and Hailwood, A. J., manufacture of *N*-diaryl[d]sulphonyl derivatives of arylamine-sulphonic acids, (P.), B., 703.
- British Dyestuffs Corporation, Ltd., Hailwood, A. J., and Shepherdson, A., preparation of solid bodies in a finely-divided state, (P.), B., 697.
- British Dyestuffs Corporation, Ltd., Hollins, C., and Chapman, E., retting of flax and other fibres, (P.), B., 11.
- British Dyestuffs Corporation, Ltd., Hollins, C., and Chapman, E., manufacture of aerated waters, sparkling drinks, etc., (P.), B., 67.
- British Dyestuffs Corporation, Ltd., Hollins, C., and Chapman, E., manufacture of inks, (P.), B., 203.
- British Dyestuffs Corporation, Ltd., Horsfall, R. S., and Laurie, L. G., colouring of furs and other materials, (P.), B., 49.
- British Dyestuffs Corporation, Ltd., Horsfall, R. S., and Laurie, L. G., protection of animal fibres, etc., against the effects of alkaline or acid media, (P.), B., 363.
- British Dyestuffs Corporation, Ltd., Laurie, L. G., Linch, F. W., and Rodd, E. H., dyeing of cellulose esters and ethers, (P.), B., 891.
- British Dyestuffs Corporation, Ltd., and Mendoza, M., manufacture of new intermediate compounds and of azo-dyes therefrom, (P.), B., 887.
- British Dyestuffs Corporation, Ltd., and Mendoza, M., new intermediates and dyes therefrom, (P.), B., 921.
- British Dyestuffs Corporation, Ltd., and Moss, H. W., new azo-dyes and their application, (P.), B., 152.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Bainbridge, E. G., intermediate compounds for preparation of dyes, (P.), B., 846.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Gibson, W., production of wax-like polychloronaphthalenes, (P.), B., 597.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Gibson, W., manufacture of wax-like mixtures of substances, (P.), B., 597.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Hall, N., manufacture of aromatic acid anhydrides, (P.), B., 45.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Piggott, H. A., removal of free chlorine and bromine from fluid mixtures, (P.), B., 604.
- British Dyestuffs Corporation, Ltd., Payman, J. B., and Wignall, H., manufacture of new derivatives of 2:3-hydroxynaphthoic arylamides, (P.), B., 118.
- British Dyestuffs Corporation, Ltd., Rogers, W. D., Evans, H., and Ermen, W. F. A., manufacture of vat dyes, (P.), B., 152.
- British Dyestuffs Corporation, Ltd., Saunders, K. H., and Wignall, H., manufacture of ethylene glycol [and ethylene oxide], B., 360.
- British Dyestuffs Corporation, Ltd., Shepherdson, A., and Chapman, E., manufacture and application of water paints, (P.), B., 648.
- British Dyestuffs Corporation, Ltd., Shepherdson, A., Tatum, W. W., and Lodge, F., manufacture of anthraquinone derivatives, (P.), B., 599.
- British Dyestuffs Corporation, Ltd., Shepherdson, A., and Thornley, S., manufacture and use of vat dyes of the benzanthrone series, (P.), B., 9.
- British Dyestuffs Corporation, Ltd., Shepherdson, A., and Thornley, S., manufacture of black and grey vat dyes, (P.), B., 83.
- British Dyestuffs Corporation, Ltd., Shepherdson, A., and Thornley, S., manufacture and use of new vat dyes, (P.), B., 152.
- British Dyestuffs Corporation, Ltd., and Silvester, W. A., manufacture of new direct dyes for cotton and for regenerated cellulose materials, (P.), B., 848.
- British Dyestuffs Corporation, Ltd., and Simmons, T. A., manufacture of triarylmethane dyes, (P.), B., 400.
- British Dyestuffs Corporation, Ltd., Strafford, N., and Walker, E. E., manufacture of phenolic resins, (P.), B., 826.
- British Dyestuffs Corporation, Ltd., and Thornley, S., new black and grey vat dyes, (P.), B., 923.
- British Dyestuffs Corporation, Ltd., and Walker, E. E., manufacture of condensation products of phenols, (P.), B., 936.
- British Dyestuffs Corporation, Ltd., See also Cronshaw, C. J. T., Dyson, G. M., Horsfall, R. S., Imbert, G., Payman, J. B., Perkin, W. H., jun., Bodd, E. H., Saunders, K. H., Smith, L., and Thornley, S.
- British Engineering Standards Association, British standard specification for chemical lead, B., 573.
- British Engineering Standards Association, British standard specification for regulus metal, B., 573.
- British Enka Artificial Silk Co., Ltd., and Naaml. Vennoots. Nederlandsche Kunstzijdefabr., production of acetylcellulose compounds and the artificial silk, bands, films, and other artificial textile products, plastic masses, etc. manufactured therefrom, (P.), B., 444.
- British Furnaces, Ltd., and Smith, E. W., annealing furnaces, (P.), B., 608.
- British Glues & Chemicals, Ltd., and Drew, R. B., degreasing of bones and other materials containing moisture, (P.), B., 491.
- British Glues & Chemicals, Ltd. See also Ellenberger, J.
- British Hartford-Fairmont Syndicate, Ltd., and Hiller, E. O., apparatus for annealing glassware, (P.), B., 15.
- British Hartford-Fairmont Syndicate, Ltd., and Russell, A. W., apparatus for annealing glassware, (P.), B., 265.
- British Hartford-Fairmont Syndicate, Ltd., and Wardley, T., apparatus for feeding molten glass, (P.), B., 92.
- British Hartford-Fairmont Syndicate, Ltd., Wardley, T., and Renn, H. V. E. M., glass-annealing lehrs, (P.), B., 859.
- British Mannesmann Tube Co., Ltd., and Koehn, W., [wire-reinforced fabric] binder for covering the surfaces of pipes and tubes, (P.), B., 759.
- British Mannesmann Tube Co., Ltd., and Weiser, R. F., coating for protecting the inner surfaces of hollow bodies, such as tubes, etc., (P.), B., 759.
- British Mannesmann Tube Co., Ltd., and Weiser, R. F., covering and protecting the surfaces of hollow bodies [with bitumen, etc.], (P.), B., 759.
- British Oil & Cake Mills, Ltd. See McNicoll, D.
- British Rubber & Tyre Manufacturers Research Association. See Gallie, G., and Porritt, B. D.
- British Synthetics, Ltd. See Higgins, E. B.
- British Thomson-Houston Co., Ltd., and Adams, L. V., flexible [laminated] insulating material, (P.), B., 717.
- British Thomson-Houston Co., Ltd., and Adams, L. V., preparation of resinous condensation products, (P.), B., 867.
- British Thomson-Houston Co., Ltd., and Alexander, P. P., fusing of metals by the electric arc process, (P.), B., 21.
- British Thomson-Houston Co., Ltd., and Barringer, L. L., lacquering of metal surfaces, (P.), B., 680.
- British Thomson-Houston Co., Ltd., and Barringer, L. L., moulded articles such as tiles, slabs, etc., (P.), B., 817.
- British Thomson-Houston Co., Ltd., and Chislet, H., coating by depositing emulsified japan ingredients, (P.), B., 614.
- British Thomson-Houston Co., Ltd., and Cox, D. C., means for preventing sludging in transformer and like oils maintained at high temperatures, (P.), B., 843.
- British Thomson-Houston Co., Ltd., and Davey, W. P., coating materials [water japs], (P.), B., 614.
- British Thomson-Houston Co., Ltd., and Dawson, E. S., jun., making resinous compositions, (P.), B., 720.
- British Thomson-Houston Co., Ltd., and Fuller, T. S., resistance alloys, (P.), B., 821.
- British Thomson-Houston Co., Ltd., Hegel, G. W., and Brophy, G. R., carburisation of ferrous metals, (P.), B., 931.
- British Thomson-Houston Co., Ltd., and Heisler, C. L., [wire-enamelling ovens], (P.), B., 413.
- British Thomson-Houston Co., Ltd., Inman, G. E., and Zabel, W. P., treatment of filaments for incandescence lamps, to., (P.), B., 529.
- British Thomson-Houston Co., Ltd., and Kienle, R. H., preparation of resinous condensation products, (P.), B., 867.
- British Thomson-Houston Co., Ltd., and Long, G. A., [recording] photometric apparatus, (P.), B., 199.
- British Thomson-Houston Co., Ltd., and Miller, L. B., production of vitreous silica, (P.), B., 232*.
- British Thomson-Houston Co., Ltd., and Newkirk, B. L., mercury vapour generators, (P.), B., 915.
- British Thomson-Houston Co., Ltd., and Palmer, R., metal plating, (P.), B., 759.
- British Thomson-Houston Co., Ltd., and Pipkin, M., coloured or diffusing coating for [bulbs of] incandescence lamps, etc., (P.), B., 760.
- British Thomson-Houston Co., Ltd., and Prindle, R. B., electric discharge [space current] device, (P.), B., 760.
- British Thomson-Houston Co., Ltd., and Ruder, W. E., heat-resisting metallic articles, (P.), B., 161.
- British Thomson-Houston Co., Ltd., Schwartz, E. W., and Kaimer, F. R., manufacture of electrodes for arc-welding, (P.), B., 490.
- British Thomson-Houston Co., Ltd., and Steele, W. R., heat-resistant compounds, (P.), B., 158.
- British Thomson-Houston Co., Ltd., and Steenstrup, C., evaporators for refrigerating machines, (P.), B., 698.
- British Thomson-Houston Co., Ltd., and Sykes, W. P., metal [tungsten and molybdenum] alloys, (P.), B., 489.
- British Thomson-Houston Co., Ltd., and Unger, M., crucibles [for molten metals], (P.), B., 368.
- British Thomson-Houston Co., Ltd., and Valentine, I. R., purification of copper and copper alloys, (P.), B., 757.
- British Thomson-Houston Co., Ltd., Warren, H. W. H., Newbound, R., and Ward, A. T., resinous condensation products, (P.), B., 648.

- British Thomson-Houston Co., Ltd., Young, A. P., Warren, H. W. H., and Chapman, R. J., spinning boxes used in manufacture of artificial silk and like material, (P.), B., 638.
- Britton, E. C. See Hale, W. J.
- Britton, R. P. L., false equilibria, with special reference to rosin solutions and gold size, B., 866.
- Britzke, E., production of arsenates and pyroarsenates, (P.), B., 51.
- Briusova, L. J., 6-methylbornylene, A., 69.
- Briusova, L. J. See also Nametkin, S. S.
- Broadbent, B. L. See Broadbent & Sons, Ltd., T.
- Broadbent & Sons, Ltd., T., and Broadbent, B. L., centrifugal machines, (P.), B., 772.
- Broadbent & Sons, Ltd., T., and Hallitt, W., continuous centrifugal dryers, (P.), B., 552.
- Broadby, H. See Flodin, H. G.
- Broadhead, R. W., regenerator settings for use in the manufacture of gas, (P.), B., 357.
- carbonising plant used in the manufacture of gas, (P.), B., 470.
- Broadley, J. R., ore concentrating machines, (P.), B., 451.
- Broadway, L. See Sucksmith, W.
- Brockbank, W., serum-calcium in pulmonary tuberculosis and on intravenous injection of calcium, A., 667.
- Brockmann, H. See Abderhalden, E.
- Brod, A. See Novák, H.
- Brode, W. R., analysis of the absorption spectrum of cobalt chloride in concentrated hydrochloric acid, A., 458.
- relationships between absorption spectrum and chemical constitution of azo-dyes. II. Influence of position isomerism on the absorption spectrum of nitro-derivatives of benzeneazophenol, *o*-cresol, and *m*-cresol, A., 1171.
- Brode, W. R., and Morton, R. A., absorption spectra of solutions of cobalt chloride, cobalt bromide, and cobalt iodide in concentrated hydrochloric, hydrobromic, and hydriodic acids, A., 1089.
- Brode, W. R. See also Scribner, B. W.
- Broderick, A. E. See Adkins, H., and Adkins, T.
- Brodersen, K. See I. G. Farbenind. A.-G.
- Brodowski, K., production of compounds of metal and sulphur, (P.), B., 927.
- Brody, E., and Millner, T., constitution of silver subfluoride. I. and II., A., 223, 694.
- Broeker, C. E. See Harkins, W. D.
- Broeker, W., phenoxy- and tolyloxy-, especially *m*-tolylloxy-derivatives of phosphorus trichloride and thiophosphoryl chloride, A., 533.
- Broeker, W. See also Anschütz, L.
- Brønsted, J. N., thermal data of tin, A., 354.
- theory of the acidic-basic function, A., 1188.
- acid and basic catalysis, A., 1195, 1336.
- Brønsted, J. N., and Guggenheim, E. A., theory of acid and basic catalysis; mutarotation of dextrose, A., 848.
- Brønsted, J. N., and King, C. V., acid dissociation of aquo-ions, A., 18.
- Brønsted, J. N., and Volqvartz, K., acid dissociation of aquo-ions. II., A., 1326.
- Brønsted, J. N., and Williams, J. W., activity coefficients of ions in aqueous solutions of non-electrolytes, A., 708.
- Brösse, W. See Jander, G.
- Broken Hill Proprietary Co., Ltd., blast furnaces [for iron ores], (P.), B., 716*.
- Broken Hill Proprietary Co., Ltd. See also Power, W. P.
- Bromfield, R. J. See Harrison, G. A.
- Broniewski, W., and Hackiewicz, B., structure of copper-tin alloys, A., 1327.
- Broniewski, W., and Slivovski, L., structure of tin-antimony alloys, A., 829, 955.
- lead-antimony alloys, A., 1085.
- Brunk, D. W. See Meyer, C. F.
- Brunk, O. von. See Telefunken Ges. für drahtlose Telegraphie m.b.H.
- Bronsart, H. von. See Wrangell, M. von.
- Brook, G. B., and Simcox, H. J., practical pyrometry, B., 695.
- Brookby, H. E., Roos, C. K., and United States Gypsum Corporation, cementitious material, (P.), B., 485.
- Brooke, C. L., and Sherwood, R. C., how the experimental baking test [for flour] has been developed, B., 909.
- Brooks, F. P., Bunsen valve in blood-urea determinations, A., 1392.
- Brooks, F. P. See also Wheeler, A. S.
- Brooks, J., preparation of a lead selenide hydrosol, A., 704.
- Brooks, J. See also Jowett, M.
- Brooks, M. M., penetration of methylene-blue into living cells, A., 327.
- Brooks, R. E., and MacGillivray, J. H., studies of tomato quality. II. Effect of soil moisture on percentage of dry matter in the fruit, B., 766.
- Brooks, W. C. See Barhoff, F. W.
- Broom, W. E. J., analysis of gaseous mixtures containing carbon dioxide, carbon monoxide, hydrogen, and methane, B., 775.
- Broomfield, H., and Shoe Inventions, Ltd., production of a water-proofing bottom-filling composition for boots, shoes, etc., (P.), B., 420.
- Brophy, G. R. See British Thomson-Houston Co., Ltd.
- Brophy, O., pyrometer thermocouple [for immersion in molten metals], (P.), B., 161.
- Brosel, F. See Eibner, A.
- Brothers, C. See Brown, O. W.
- Broude, L., extractives of muscle. XXVII. Determination of carnosine, A., 665.
- Brouwer, E., chemical composition of the bones of scorbutic guinea-pigs, A., 206.
- Brown, A. C., mixture for use in the construction of cold asphalt road pavements, (P.), B., 525.
- Brown, A. C., and Hines, J. T., materials for use in making or repairing road and like surfaces, (P.), B., 93.
- Brown, A. C. See also Wilson, F. J.
- Brown, A. L., and Westinghouse Electric & Manufacturing Co., thinning of varnish, (P.), B., 376.
- [resinous] condensation product and its manufacture, (P.), B., 866.
- Brown, A. M. See Ramsay, A. A.
- Brown, B. K., graphitic oxide as depolariser in the Leclanché cell, B., 272.
- solvent structure and solvent action, B., 275.
- large-scale titanium pigment production based on old laboratory process, B., 680.
- Brown, B. K., and Storey, O. W., electrochemical production of graphitic oxide, B., 271.
- Brown, C. B. See Lloyd, E.
- Brown, C. McC., production of alumina, (P.), B., 641.
- Brown, D. See Blum, L.
- Brown, D. G. See Cumming, W. M.
- Brown, D. J. See Nielsen, R. F.
- Brown, E., and Chapman, D. L., Budde effect with a mixture of bromine vapour and air, A., 469.
- Brown, E. T. See Hochstein, L.
- Brown, F. E., and Loi, C. F., effect of the addition of sodium carbonate and silicate on the casting properties of clay slip, B., 92.
- Brown, F. E. See also McLaughlin, H. M.
- Brown, G. B., and West, J., structure of monticellite, $MgCaSiO_4$, A., 821.
- Brown, G. G. See Furnas, C. C., and Hunn, J. V.
- Brown, H., mineral content of human skin, A., 194.
- Brown, H. A., and University of Illinois, electron tube, (P.), B., 129.
- Brown, H. M., effect of magnetic fields on thermal conductivity of iron, copper, gold, silver, and zinc, A., 1179.
- Brown, H. R., value of inert gas as a preventive of dust explosions in grinding equipment, B., 657.
- Brown, J. See Trotman, S. R.
- Brown, J. S., Diesel-engine performance on oils obtained from the low-temperature carbonisation of coal, B., 289.
- Brown, J. W. See Haynes, D.
- Brown, L. E., separator, (P.), B., 3.
- Brown, M. J., Harding, E. A., and Roessler & Hasslachner Chemical Co., production of hydrocyanic acid, (P.), B., 857.
- Brown, O. W., Brothers, C., and Etzel, G., catalytic activity of thallium, A., 488.
- Brown, O. W., Etzel, G., and Henke, C. O., catalytic reduction of nitro-organic compounds in the liquid system, A., 600.
- Brown, O. W., and McGlynn, A., electrodeposition of thallium, B., 451.
- Brown, R. B., "Zair" process [treatment of animal fibres with ozone], B., 707.
- Brown, R. C. See Bates, L. F.
- Brown, R. J., Sharp, J. E., and Nees, A. R., accurate determination of dry substance in beet-house syrup, B., 832.

- Brown, R. L., and Branting, B. F., composition of tar from low-temperature carbonisation of Utah coal. I., B., 393.
- Brown, R. L., and Galloway, A. E., methyl alcohol from hydrogen and carbon monoxide, B., 780.
- Brown, R. L. See also Fieldner, A. C.
- Brown, R. S. See Klehn, C. A.
- Brown, R. W. See Zimmerman, E. C.
- Brown, S., and Halowax Corporation, chlorination [of naphthalene], (P.), B., 740.
- Brown, S. F. See Foster, D. G.
- Brown, W. H., and Howard, M., calcium and inorganic phosphorus in the blood of rabbits. III. Periodic and progressive variations in normal rabbits, A., 1269.
- Brown Co. See Richter, G. A., and Schur, M. O.
- Brown & Son (Alembic Works), Ltd. See Easterbrook, F. A.
- Browne, A. W. See Gardner, W. H., and Kirk, R. E.
- Browne, V. B., manufacture of [ferrous] alloys, (P.), B., 304.
- Browne, W. R., some metamorphosed dolerites from Broken Hill, A., 1110.
- petrological notes on some New South Wales alkaline basic rocks, A., 1111.
- Browne, W. R., and White, H. P., hypersthene-andesite of Blair Duguid, near Allandale, N.S. Wales, A., 268.
- Browning, C. H., Cohen, J. B., Ellingworth, S., and Gulbransen, R., antiseptic compounds: further derivatives of anilquinoline, A., 1141.
- Browning, E. See Hyde, J. F.
- Brownmiller, L. T. See Hansen, W. C.
- Brownson, H. W., and Kynoch, Ltd., annealing of metal, (P.), B., 608.
- Bruce, J. R., physical factors on the sandy beach. II. Chemical changes: carbon dioxide concentration and sulphides, A., 611.
- Bruchhausen, W. von, loss of chlorine in ashing [of flour], B., 313.
- Bruckner, Z. See Zemplén, G.
- Brüche, E., effective cross-sectional area of gas molecules, A., 223.
- relation between effective molecular diameter and quantum changes, A., 453.
- Brückmayr, G. See Aurig, M.
- Brückner, H., hydrolysis of sodium chloride, A., 1199.
- catalytic chlorination of acetic acid to chloroacetic acid, B., 254.
- preparation of xylenols from technical xylenes and ethylphenols from benzene, B., 739.
- [separation of the] phenols of coal tar, B., 803.
- Brüggenmann, K., laboratory methods for the determination of the yields of coke and by-products from coal, B., 321.
- Brünig, H., Einecke, F., Peters, F., Rabl, R., and Viehl, K., biological degradation of uric acid to allantoin, A., 792.
- Brünig, A., and Kraft, B., fatal case of acute lead poisoning, A., 1399.
- technique of biological protein differentiation, B., 386.
- detection of plant-poisons and medicaments in decomposed corpses. II. Veronal, B., 546.
- Bruère, P., spectroscopic control of the end-point of indicators of the phthalein and sulphonaphthalein groups, A., 606.
- stable colorimetric standards for simple and mixed indicators, A., 606.
- Brugger, W. See Ruzicka, J.
- Brugsch, T., and Horsters, H., intermediary carbohydrate metabolism. XXI. Effect of insulin on dextrose, lactic acid, and phosphoric acid formation by liver tissue, A., 90.
- Bruhat, G., and Panthenier, M., theory of electrostriction and its experimental control, A., 695.
- Bruins, H. R., Soret effect in dilute solutions, A., 14.
- Brukl, A. See Moser, L.
- Brumshagen, W. See Rieche, A.
- Brun, J. See Raeder, M. G.
- Brun, P., heat of formation of partly miscible water-alcohol mixtures, A., 844.
- dehydration of aqueous-alcoholic liquids, B., 32.
- Brun, P., and Granier, J., dielectric properties of aqueous-alcoholic mixtures, A., 229.
- Brundo, A. See Binaghi, R.
- Brunel, H. See Allègre, C.
- Brunet. See Carrière, E.
- Brunetti, R., polychroism and the orientation of the ions in the crystals of the rare earths, A., 1077.
- Bruni, G., and Ferrari, A., solid solutions between compounds of elements of different valency, A., 11.
- Brunius, E., enzyme experiments with dried muscle, A., 1276.
- Brunius, E., and Proffe, S., preparation of substance taking part in the enzymic decomposition of dextrose to lactic acid (Meyerhof's "activator"), A., 1281.
- Brunius, E. See also Euler, H. von.
- Brunkén, J. See Windhans, A.
- Brunler, O., combustion apparatus, (P.), B., 632.
- Brunner, E. See Fichter, F.
- Brunner, K. [with Madersbacher, N., and Goritschan, E.], constitution of " β -resodicarboxylic acid," A., 1374.
- Brunner, M., oxidation of *n*-hexane, A., 1211.
- Brunner, M., and Rideal, E. K., oxidation of *n*-hexane, A., 731, 1350.
- Bruno, A. A., acetates in normal and diabetic blood, A., 441.
- Brunotte, H. See Levy, P.
- Brunzema, D., development of calcium oxalate cells with particular reference to medicinal plants, A., 802.
- Brus, G., crystalline dihalogen derivatives of pinene, A., 296.
- action of chlorine and bromine on nopinene, A., 296.
- Brush, C. F., jun., and Brush Laboratories Co., manufacture of beryllium and aluminium oxides, (P.), B., 191.
- Brush Laboratories Co. See Brush, C. F., jun.
- Bruson, H. A., and Calvert, W. A., action of nascent thiocyanogen on isoprene and dimethylbutadiene, A., 988.
- Brust, J., α -sulphophenylacetic acid, A., 287.
- Brutzkus, M., synthesis of organic compounds and ammonia from water-gas without catalysts, B., 633.
- Bruylants, P., cyclopropane derivatives, A., 279*.
- Bruylants, P., and Castille, A., butenoic acid amides, A., 401.
- Bruylants, P., and Dewael, A., cyclopropane derivatives, A., 518.
- Bryan, A. B., and Sanders, I. C., dielectric constant of air at radio frequencies, A., 1076.
- Bryan, J. M., sulphide-stain method for determining small quantities of "volatile sulphur" in sugar, B., 940.
- Brydówna, (Mle.) W., direct conjugation of benzene rings by means of the diazo-reaction, A., 279.
- Brydówna, (Mle.) W. See also Fournéau, E.
- Brysilka, Ltd., and Schubert, F. W., manufacture of artificial silk, (P.), B., 852.
- Brysilka, Ltd. See also Schubert, F. W.
- Bsteh, O. See Weltmann, O.
- Buadze, S. See Abderhalden, E.
- Bub, L. See I. G. Farbenind. A.-G.
- Bubar, H. H., separating dust from gases, (P.), B., 75.
- Bubblestone Co., porous material containing cement, (P.), B., 93.
- Buc, H. F., and Standard Development Co., manufacture of esters, (P.), B., 151.
- Buchan, J. L., free energies of solid compounds deduced from their crystal structure: with special reference to calcite and aragonite, A., 110.
- free energy of transition in the system calcite-aragonite, A., 133.
- Buchan, J. L., and Fox, J. J., precipitation of zinc chromate, B., 613.
- Buchanan, G. H., and American Cyanamid Co., separation of cyanides from mixtures, (P.), B., 333.
- manufacture of hydrocyanic acid from crude cyanides, (P.), B., 446.
- Buchanan, G. H., Griffith, P. W., and American Cyanamid Co., recovering combined nitrogen from crude calcium cyanamide, (P.), B., 748.
- Buchanan, G. H., Hulings, C. M., and American Cyanamid Co., production of potassium ferrocyanide, (P.), B., 447.
- Buchanan, G. H., Osborne, J. L., and American Cyanamid Co., manufacture of formic acid, (P.), B., 397.
- Buchanan, G. H., Winner, G. B., Tucker, E. L., and American Cyanamid Co., hydrometallurgical process, (P.), B., 234.
- Buchanan, J. H. See Levine, M., and Peterson, E. E.
- Buchanan, J. W., limitations of Warburg's theory of the rôle of iron in respiration, A., 82.
- Bucher. See Favrel, G.
- Buchholz, E. See Lottermoser, A.
- Buchholz, R. F., and Atwater Kent Manufacturing Co., resistance element, (P.), B., 199.
- Buchman, T. E. See Horrall, O. H.
- Buchner, A. See Felix, K.
- Buchner, G., behaviour of beeswax towards trichloroethylene at ordinary temperatures, B., 417.
- Buchner, M., production of alumina, (P.), B., 814.

- Buchner, M., and Meyerhofer, A. F., production of hydrofluoric acid from substances containing fluorine and silicon, (P.), B., 333*.
production of soluble salts of organic compounds possessing acid character, (P.), B., 781*.
production of [soluble] carbonates, (P.), B., 604*.
- Buchner, M., and Uhde, R., preparation of stable emulsions, suspensions, and colloidal dispersions of organic substances insoluble in water, (P.), B., 781.
- Buchner, M. See also Meyerhofer, A. F.
- Buchwald, K. See Mattick, W. L.
- Buckingham, R. See McBain, J. W.
- Bucknall, W. R., and Wardlaw, W., complex cyanides of molybdenum, A., 159.
cobalt allylamines: a supposed co-ordination number of eight for cobalt, A., 1345.
attempted resolution of triethylenediamine-nickel chloride, A., 1362.
- Buckner, G. B., Martin, J. H., and Peter, A. M., relative utilisation of different calcium compounds in the production of eggs, A., 792.
- Buczwiński, M. See Grischkevitch-Trochimovski, E.
- Buday, L., determination of chloride in urine and blood by conductivity titration, A., 1394.
- Budd Wheel Co. See Kelley, G. L.
- Budger, R. M., use of single thermo-junctions and of echette gratings in the far infra-red, A., 337.
- Budlovský, C. E., determination of chlorine in sugar factory products, B., 620.
- Budnikov, P. P., [solubility of natural calcium sulphate hemihydrate], A., 470.
positive and negative catalysis of the setting of plaster of Paris, A., 488.
velocity of formation of anhydrous calcium sulphate from gypsum, A., 717.
velocity of dehydration of gypsum at various temperatures, A., 1328.
velocity of hydration of dehydrated gypsum, A., 1328.
analysis of potassium ferrocyanide, A., 1348.
manufacture of sodium sulphide, B., 87.
comparison of the methods of determining potassium ferrocyanide, B., 522.
gypsum, B., 672.
production of iron [oxide] colours, B., 936.
- Budnikov, P. P., and Shilov, E., reduction of sodium sulphate to sodium sulphide, particularly by hydrogen and carbon monoxide in the presence of catalysts, B., 481.
- Budnikov, P. P., and Sysolov, A. N., reduction of sodium sulphate with carbon, B., 446.
- Bücher, C., protection of water pipes, (P.), B., 590.
- Bücher, H., manufacture of yeast, (P.), B., 585, 621.
- Büchner, E. H., and Kleijn, D., flocculation of agar sols by salt mixtures, A., 236.
- Bückert, H., diffusion coefficients of flame gas ions in relation to temperature, A., 342.
- Bühl, A., diffusion potential of hydrochloric acid, A., 245.
- Bührig, W. H. F. See Corby, R. L.
- Bührmann, H., superheating of blast-furnace and cupola-furnace slag and addition of certain lacking constituents, (P.), B., 19.
- Buel, H., and Hammond, W. P., composition for preserving food products, (P.), B., 782.
- Buell, M. V., and Perkins, M. E., micro-determination of adenine nucleotide content of blood, A., 316.
- Bülow, C., and Dick, W., 4-methylumbelliferone as a fluorescent indicator, A., 1345.
- Bümming, G., stability of benzaldehydecyanohydrin, A., 641.
- Büning, H., increasing the percentage of fat in milk, and production of artificial creams, (P.), B., 942.
- Buerger, C. B., and Gulf Refining Co., distillation of [mineral] oils, (P.), B., 396.
pressure-still process, (P.), B., 560.
- Bürger, M., cholesterol and nitrogen content of the cartilage at various ages and its significance in the physiology of age, A., 194.
- Buerger, M. J., cause of translation striae and translation strain-hardening in crystals, A., 694.
- Bürki, F., rotatory dispersion of tartaric acid, A., 460.
experiments with hyposulphite and rongalite, B., 245.
- Buess, W., rotary melting furnaces, (P.), B., 269.
- Büttgenbach, E., [acidity of] aqueous extracts from [vegetable-tanned] leathers, B., 828.
- Büttner, H. E., action of the sympathetic on the formation of ammonia in muscle, A., 1277.
- Büttner, K., measurement of penetrating radiation, A., 104.
- Büttner-Werke Aktien-Gesellschaft, drying drum with distributing apparatus, (P.), B., 552.
- Büttner-Werke Aktien-Gesellschaft, and Kleinmann, F., de-colorising agents, (P.), B., 784.
- Bufano, M., effect of brewers' yeast extract on the combined sugar of the blood, A., 315.
- Buffalo Foundry & Machine Co. See Lavett, C. O.
- Buffalo Hammer Mill Corporation. See Mursch, J.
- Buffalo Refractory Corporation. See Farish, W. A.
- Buffat, A. See Marie, C.
- Bugbee, E. P., and Simond, A. E., bio-assay of preparations of ovarian follicular hormone, A., 1404.
- Bugbee, E. P. See also Kamm, O.
- Buhmann, H., physical constants of bromoform, A., 578.
- Buhtz, E., centrifugal mixers, B., 391.
- Buining, J. See Backer, H. J.
- Buisson, H., measurements of the ozone in the higher atmosphere during 1927, A., 611.
- Buley, A. M. See Blumenberg, H., jun.
- Bull, A. W., and Darby, G. M., sedimentation studies of turbid American river waters, B., 350.
- Bull, A. W. See also Dorr Co.
- Bull, H. O., relationship between state of maturity and chemical composition of the whiting, *Gadus merlangus*, A., 541.
- Bulle, G., influence of varying proportions of scrap and pig iron on the economical working of the open-hearth process [for the manufacture of steel], B., 406.
coke-oven gas as a fuel for the Siemens-Martin furnace, B., 860.
- Bullis, D. E. See Wiegand, E. H.
- Bum, P. G. See Blumenstock-Halward, E.
- Bumcke, G., sulphonated oils and their reaction on leather, B., 166.
- Bumm, E. See Kraut, H., and Willstätter, R.
- Bunbury, E. See Barry, G.
- Bunbury, H. M. See British Dyestuffs Corporation, Ltd., and Perkin, W. H., jun.
- Bunce, E. H., zinc oxide in exterior mixed paints, B., 23.
- Bunce, E. H., Mahler, G. T., and New Jersey Zinc Co., metallurgical furnace, (P.), B., 608.
- Bunce, E. H. See also Breyer, F. G., and Singmaster, J. A.
- Bunce, E. J. H., chemical purification of waters with a high content of lime and magnesia, (P.), B., 944.
- Bunce, J. P. See Baker Perkins, Ltd.
- Bunge, C., liquid air as an explosive, B., 693.
- Bunke, F. H. See Cory, J. M.
- Bunker, J. W. M., and Anderson, E. G. E., polarised light and starch hydrolysis, A., 795.
- Bunney, W. E., and Rose, W. C., growth on diets practically devoid of arginine; relation of glutamic and aspartic acids to nutrition, A., 443.
- Bunte, A. J. See Fischer, M. N.
- Bunte, K., and Baum, K., melting of fuel ash, B., 322.
- Bunte, K., and Kammüller, A., formation of condensate in the transmission of gas under high pressures, B., 509.
- Bunte, K., and Steding, A., influence of radiant heat on the ignition velocity of gases, B., 699.
influence of inert gases and water-gas on the ignition velocity of technical gases, B., 699.
explosion limits of technical gas mixtures, B., 735.
- Bunte, K., and Zwieg, W., Geipert's method for the determination of the gas yield in thermals from gas coals, B., 591.
- Buntin, A. P. See Dumanski, A. V.
- Bunting, B., Eaton, B. J., and Georgi, C. D. V., [extraction of oil from] oil palm in Malaya, B., 163.
- Burada, A., mud from lake Tékir-Ghiol [Romania], A., 391.
- Burbidge, P. W., and Alexander, N. S., electrical methods in hygrometry, A., 729.
- Burch, C. R., oils, greases, and high vacua, A., 1348.
- Burekhardt, E., Stärkle, M., and Chemische Fabrik. vorm. Sandoz, preparation of emetine, (P.), B., 502.
- Burdick, J. N. See Dana, L. I.
- Burdick Corporation. See Lavoisier, I. J.
- Bureš, E., and Borgmann, J., 2:5:6-trichloro-m-4-xylydine and its derivatives, A., 1127.
- Bureš, E., and Mandel-Borgmannová, A., 5-bromo-m-4-xylydine, A., 1127.

- Burge, W. E., Estes, A. M., Wickwire, G. O., and Williams, M., effect of internal secretions and temperature on the metabolism of amino-acids and simple sugars by animal cells, A., 1404.
- Burge, W. E. See also Estes, A. M.
- Burger, G. See Späth, E.
- Burger, H. C. See Cittert, P. H. van, and Ornstein, L. S.
- Burger, M., and Habs, H., esterification of serum-cholesterol in hepatic disease, A., 791.
- Burger, P., and Hydrocarbon Aktien-Gesellschaft für Chemische Produkte, apparatus for the splitting of acetylene, (P.), B., 560.
- Burgers, W. G. See Arkel, A. E. van.
- Burgess, A. H., drying of hops. VI. Institute of Brewing research scheme; report of the sixth season's work at the experimental oast, 1926, B., 461.
- Burgess, A. H., and Martin, H., extraction of β -resin in the determination of hop resins, B., 170.
- Burgess, G. K., effect of phosphorus and sulphur in steel; effect of sulphur on plate material, B., 525.
- Burgess, H. See Lowry, T. M., and Morgan, G. T.
- Burgess, L., and Standard Oil Development Co., treatment of emulsions, (P.), B., 472.
- refining of [hydrocarbon] oils, (P.), B., 807.
- Burgess, M. J., firedamp explosions: projection of flame. II., B., 556.
- Burgess, P. S., and McGeorge, W. T., zeolite formation and base-exchange reactions in soils, B., 380.
- Burgess, P. S. See also McGeorge, W. T.
- Burgess, R., microbiology of wool, B., 850.
- Burgess Laboratories, Inc., C. F., dry cell, (P.), B., 864.
- Burgevin, H. See Demolon, J.
- Burggraaf, A. J. See Klosky, J.
- Burk, D., does the pea plant fix atmospheric nitrogen? A., 1063.
- Burk, R. E., heterogeneous thermal decomposition of ammonia in strong electric fields, A., 27.
- thermal decomposition of ammonia on mixed surfaces of tungsten and platinum, A., 1196.
- sixth report of committee on contact catalysis, A., 1334.
- Burk, R. E., and Gillespie, D. C., absorption kinetics for molecules attached at more than one point, A., 847.
- Burke, C. E., Hopkins, H. H., and Du Pont de Nemours & Co., E. I., synthetic resin, (P.), B., 457.
- Burke, C. E. See also Reid, E. E.
- Burke, J. G. See Gibson, W. A.
- Burke, S. P., and Schumann, T. E. W., diffusion flames, B., 880.
- Burkey, H. M., and American Metal Co., Ltd., production of metallic antimony, alloys of antimony, and alkali arsenates, (P.), B., 235.
- Burkhardt, H. See Berl, E.
- Burkhardt, N. See Ashworth, F.
- Burks, H. G. See Keyes, F. G.
- Burkser, E., and Rublof, S., microchemical detection of rubidium, A., 37.
- Burmah Oil Co., Ltd. See Allan, H. L.
- Burmeister, H. See Excelsior Feuerlöschgeräte Akt.-Ges.
- Burn, J. H., and Ling, H. W., effect of insulin on acetonuria, A., 925.
- Burneleit, W. See Meerwein, H.
- Burnet, F. M., Muller's phenomenon; distant punctate hæmolysis of blood agar by staphylococci, A., 1403.
- Burnett, W. B. See Grasselli Chemical Co.
- Burns, R. M., Warner, C. W., and Western Electric Co., Inc., electro-cleaning [of metal surfaces], (P.), B., 236.
- Burns, T. See Cort, S. J.
- Burr, A. H., constant-drop apparatus, A., 986.
- Burr, A. H., and Rowe, F. M., constitution of Hansa yellow 3G, 5G, and 10G (M.L.B.), and permanent yellow R and 4R (A.G.F.A.), B., 634.
- Burr, G. O. See Evans, H. M.
- Burr, J., screening of materials, (P.), B., 144.
- Burrage, A. C. See Heuser, R. V.
- Burrage, A. C., jun., vulcanisation of rubber, (P.), B., 650*.
- Burrage, A. C., jun. See also Heuser, R. V.
- Burrai, F. See Levi, M. G.
- Burrell, G. A., composition of petroleum and its products, B., 630.
- Burrows, G. J., solution volume of a solute in liquid mixtures, A., 233.
- salinity of water of Gulf of Carpentaria, A., 267.
- Burrows, G. J., and Wark, I. W., co-ordination valency of aluminium in its salicylate-derivatives, A., 288.
- Burrows, G. J. See also Bartholomew, (Miss) E. M.
- Burstall, A. F. See Synthetic Ammonia & Nitrates, Ltd.
- Burstall, F. H. See Morgan, G. T.
- Burstein, A. I., determination of dust inhaled by workmen, B., 876.
- Burstein, A. I., and Goldenberg, J. D., blood-sugar level in nicotine poisoning, A., 1400.
- Burstein, R., titrations by Fajans' method. II. Determination of mercurous and bromide ions, A., 265.
- Burstein, R. See also Rabinovitch, A.
- Burt, C. P. See Hibbert, H.
- Burt, J. B., effect of sunlight on citric acid in presence of ferrie salts, with special reference to the elixir of iron, quinine, and strychnine, and elixir of iron, quinine, and strychnine phosphates, B., 729.
- Burt Co., Ltd., F. N., composition of matter [cellulose impregnated with sulphur] and process of forming the same, (P.), B., 637.
- Burt Co., Ltd., F. N. See also Darrin, M.
- Burtis, M. P. See Sherman, H. C.
- Burton, A. C. See McLennan, J. C.
- Burton, D., batch B. 14 hide powder. II. and III., B., 165, 341.
- Burton, D., and Charlton, H., chrome tanning. XVIII. Analytical figures for [chrome-tanned] leather, B., 580.
- Burton, E. F., and Pitt, A., conductivity measurement by means of an oscillating valve circuit, A., 712.
- Burton, E. F. See also Reid, B. M.
- Burton, H., mobile-anion tautomerism. II. Mechanism of anionotropic change, with special reference to the fate of the mobile anion, A., 880.
- Burton, H., and Ingold, C. K., mobile-anion tautomerism. I. Conditions of activation of the three-carbon system, and modes of addition to conjugated systems, A., 634.
- Bury, C. R., absorption of butyric acid on water surfaces, A., 119.
- Bury, C. R. See also Jones, E. R., and Jones, F. E.
- Bury, E., and Walker, F. W., recovery of lead and zinc from zinc waste, (P.), B., 489.
- Bury, F. W. See Sprawson, C.
- Busch, A. See Wulff, J. A. von.
- Busch, F. See Jander, G.
- Busch, G. See Kötze, A.
- Busch, M., and Foerst, W. [with Stengel, W.], phenacylhydrazine, A., 997.
- Busch, M., and Knoll, R. [with Leuze, A., and Ruppert, A.], alkylation of phenols; introduction of diphenylmethyl, A., 58.
- Buschke, A., and Berman, L., chemical and biological relationships between thallium and lead, A., 793.
- Buschlinger, H., value of aluminium and its alloys in chemical and allied industries, B., 391.
- Bushill, J. H. See Lyons & Co., Ltd., J.
- Buss, A., apparatus for the investigation of air, and its content of foreign vapours, especially of mercury vapour, A., 1108.
- Buss, G. See Simon, A.
- Busse, O., cold-rolling of bands and strips from metals and alloys, (P.), B., 576.
- Busse, O., and Mansfeld A.-G. für Bergbau & Hüttenbetrieb, annealing of metal bands, (P.), B., 821.
- Busse, S. A. See Rutovski, B. N.
- Bussino, G. See Schiaparelli, C.
- Buswell, A. M. See Neave, S. L.
- Butchart, W. A. See De Mier, F.
- Butcher, R. W., Pentelow, F. T. K., and Woodley, J. W. A., diurnal variation of gaseous constituents of river waters. II. and III., A., 87, 1163.
- Butenandt, A. [with Linsert, O., and Botschwar, D.], rotenone, the physiologically active constituent of *Derris elliptica*, A., 1017.
- Butkewitsch, W. W., factors determining the availability to plants of difficultly soluble calcium phosphates, B., 583.
- Butkov, K., and Terenin, A., optical excitation and dissociation of metallic halides, A., 935.
- Butkov, N., determination of oxidisability of transformer oils, B., 736.
- Butkov, N. A. See Menschutkin, B. N.
- Butler, A. Q. See Baxter, G. P.
- Butler, C. See British Dyestuffs Corporation, Ltd.
- Butler, J. A. V., strong electrolytes, A., 478.
- Butler, J. B., and Drumm, J. J., treatment of vegetable produce, (P.), B., 386*.

- Butler, K. H., and McIntosh, D., compounds of the halogens with each other, and with the halogen hydrides, A., 35.
solubilities and mol. wt. determinations in liquid chlorine, A., 829.
- Butovski, K., hydrogenation of vegetable oils with water-gas, B., 901.
- Buttenberg, P., and Gabrtz, G., fumigation with hydrogen cyanide, B., 390.
- Buttenschön, W. See I. G. Farbenind. A.-G.
- Butterfield, W. J. A., road-surfacing materials, B., 869.
- Butterworth, (Miss) J., complete photo-electric emission from potassium, A., 931, 1008.
- Buttescu, D., metallurgy of ancient bronzes, B., 487.
- Buttgenbach, H., crystallography of aurichalcite, danburite, cerussite, etc., A., 864.
new mineral [berthonite] from Tunis, A., 865.
minerals from new veins in Belgian Congo, A., 865.
- Buttolph, L. J., and Cooper Hewitt Electric Co., fluorescent paint, (P.), B., 237.
- Butts, D. C., and Hercules Powder Co., removal of diphenylamine from smokeless powder, (P.), B., 70.
- Buxton, J., and Lucas, H. J., analysis of brominated cresols, A., 313.
- Buxton, R. H. See Croft, C. M.
- Buytendyk, F. J. J. See Brinkman, R.
- Buzágh, A. von, theory of peptisation. II., A., 17.
theory of peptisation. III. Peptisation by means of hydrophilic sols, A., 17.
kinetics of peptisation, A., 237.
- Byrne, L. J. P., new method of measuring overvoltage, A., 136.
- Byrnes, C. P. See James, J. H.
- Byrom, F. B., and Kay, H. D., blood-phosphorus in health and disease. III. Alleged value of blood-phosphorus determinations in suspected malignant disease; blood-phosphorus distribution in anæmia, polycythæmia, and leucæmia, A., 1394.
- Byzom, F. B. See also Kay, H. D.
- Bysov, B. V., producing diolefines from naphtha, naphtha fractions, and naphtha residues, (P.), B., 843.
- C.
- Cabannes, J., beats produced when rotating and vibrating anisotropic molecules diffuse visible or ultra-violet light, A., 686.
- Cabannes, J., and Daure, P., spectroscopic analysis of the light obtained by molecular diffusion of a monochromatic radiation by a fluid, A., 812.
- Cabell, C. A. See McCormick, J. A.
- Cable, D. E., sulphite pulp from spruce, B., 185.
- Cabot, S., and Cabot, Inc., S., colloidal dispersion of solids, (P.), B., 288*.
- Cabot, Inc., S. See Cabot, S.
- Cabral, A. da C., composition and use [distillation] of argan wood, B., 668.
- Cabrera, B., evolution of elements, A., 216, 1303.
internuclear reactions, A., 344.
- Caccia, P., production of direct azo-dyes, (P.), B., 741.
- Cadere, D. M., granite of Cicurova [Romania], A., 391.
- Cadgène, E. See British Celanese, Ltd.
- Cadwell, C. A., and Electric Railway Improvement Co., electric furnace, (P.), B., 235.
- Cadwell, S. M., and Naugatuck Chemical Co., method of deodorising [putrefaction products of rubber latex], (P.), B., 132.
treatment of rubber, and products obtained thereby, (P.), B., 762.
treatment of rubber with aldehyde-amine condensation products, (P.), B., 762.
treatment of rubber latex and manufacture of rubber articles from latex, (P.), B., 868.
- Cadwell, S. M., Smith, O. H., and Morgan & Wright, treatment of fabrics, (P.), B., 154.
- Cady, L. D., Boltz cerebrospinal fluid test (acetic anhydride-sulphuric acid), A., 542.
- Caflisch, C. See Ferrero, P.
- Caglioti, V. See Zambonini, F.
- Cagniard, L., variation of the specific inductive capacity of fluids in intense electric fields, A., 6.
variation of dielectric constant of liquids with pressure, A., 815.
- Cahan, M. H. See Koch, E. M.
- Cahane, M., calcium, magnesium, and potassium content of muscular tissue and blood, A., 316.
- Cahill, G., and Winchester Repeating Arms Co., construction of heat-interchange apparatus, (P.), B., 551.
- Cahn, L. See Fraenkel, W.
- Cahn, M. L. See Hellerman, L.
- Cahn, T., chemical composition and histological structure of normal and atrophied muscle, A., 440.
- Cahn, T., and Bonot, A., existence of reserve proteins in the mammalian liver, A., 83.
- Cahn, T. See also Bonot, A.
- Caille, ionocolorimeter; its use in the determination of ionic acidity of solutions, A., 723.
- Caille, A., hygroscopicity of cellulose esters, B., 600.
- Caird, M. N. See Grimble, F.
- Caire, P. See Balachowsky, D.
- Cairns, A., and Bailey, C. H., proteoclastic activity of flour, B., 463.
- Cajori, F. A., and Pemberton, R., composition of synovial fluid, A., 440.
- Calbeck, J. H., and Eagle-Pieher Lead Co., manufacture of crude lithopone, (P.), B., 493.
- Calbeck, J. H., Schaeffer, J. A., and Eagle-Pieher Lead Co., storage-battery plate, (P.), B., 490.
- Calbeck, J. H. See also Schaeffer, J. A.
- Calcagni, G., magnetic rotation in optically active substances, A., 6.
action of a magnetic field on optically active substances, A., 461.
- Calco Chemical Co. See Linville, C. P.
- Calcott, W. S., English, F. L., and Du Pont de Nemours & Co., E. I., manufacture of lead tetraethyl, (P.), B., 157.
- Calcott, W. S., Hitch, A. R., Mahr, H. W., and Du Pont de Nemours & Co., E. I., manufacture of 2:3-hydroxynaphthoic acid, (P.), B., 118.
- Calcott, W. S., Parmelee, A. E., and Lorrigan, F. R., production of lead tetraethyl, (P.), B., 893.
- Calcott, W. S., Parmelee, A. E., Lorrigan, F. R., and Du Pont de Nemours & Co., E. I., manufacture of lead tetraethyl, (P.), B., 333.
- Calcott, W. S. See also Daudt, H. W.
- Caldar, J., treatment of water, oil, or other liquids, (P.), B., 74.
- Caldwell, A. L., colorimetric determinations. II. Hydrogen-ion concentration and pH, A., 857.
- Caldwell, J. S., temperature in relation to chemical composition in the apple, A., 802.
effect of climatic conditions on the chemical composition of apple juice, A., 802.
chemical composition of juices of American apples, A., 1060.
composition of American-grown French cider apples and other apples of like character, A., 1060.
seasonal variations in the carbohydrate content of swedes, B., 136.
- Caldwell, J. S. See also Culpepper, C. W.
- Caldwell, M. L. See Sherman, H. C.
- Calhoun, S. A., and Poulter, T. C., system ethyl alcohol-carbon tetrachloride, A., 19.
- Calico Printers' Association, Ltd., Lantz, L. A., and Watson, R., production of aniline black on textile fibres, (P.), B., 11.
- California Cyanide Co., Inc. See Poindexter, R. W., jun.
- California Fruit Growers' Exchange, preparation of insecticides and fungicides, (P.), B., 102.
preparation of a pectin product, (P.), B., 464.
- Callan, W. D., and Economic Powdered Products Co., dehydrating apparatus [for fluids], (P.), B., 773.
- Callendar, H. L., steam tables and equations, extended by direct experiment to 4000 lb./sq. in. and 400°, A., 1179.
- Callis, C. C. See Kraus, C. A.
- Callsen, J. See I. G. Farbenind. A.-G.
- Calton, W. E. See Woodman, H. E.
- Calver, S. See Warne, B. D.
- Calvert, W. A. See Bruson, H. A.
- Calvery, H. O., embryonic metabolism. I. Isolation of four pentose nucleotides from chicken embryos. II. Isolation of a hexose nucleic acid, A., 787.

- Calvery, *H. O.* See also Marvel, *C. S.*
 Calvet, *F.* See Chattaway, *F. D.*
 Calvet, *J.*, action of hydrochloric acid on extra-pure aluminium, B., 302.
 Calvet, *J.* See also Matignon, *C.*
 Calzolari, *F.* See Barbieri, *G. A.*
 Cambers, *H.*, pulverised-fuel burners, (P.), B., 595.
 Cambi, *L.*, and Clerici, *A.*, action of nitric oxide on the thio-sulphates of the metals of the eighth group. I., A., 258.
 ferrous-ferric cyanides, A., 512.
 Cambi, *L.*, and Davoto, *G.*, decomposition potentials of the fused halides of the alkali and alkaline-earth metals. II., A., 135.
 Cambi, *L.*, and Szegő, *L.*, spectrographic study of complex cyanogen compounds of iron. I. and II., A., 345*.
 absorption spectra and constitution of diazotates, A., 1309.
 Cambier, *R.*, and Marcy, *F.*, composition of the air of the streets of Paris, A., 502.
 Cambon, *V.*, carbonisation and liquefaction of materials of vegetable, animal, or mineral origin, (P.), B., 805.
 Cambridge Instrument Co., Ltd. See Orchard, *J. L.*
 Cameron, *A. E.*, phosphorus and arsenic in steel and the substitution theory, B., 486.
 Cameron, *A. E.* See also Morrison, *J. F.*
 Cameron, *A. T.*, and Foster, *M. E.*, pernicious anaemia. IV. Relationship between corpuscular haemoglobin and chloride contents in the anemias, A., 1394.
 Cameron, *A. T.*, and Walton, *C. H. A.*, halogen content of animal tissues, A., 1392.
 Cameron, *D. H.*, steam still for volatile acids, B., 287.
 Cameron, *G. H.* See Millikan, *R. A.*
 Cameron, *H. G.*, cardassins, a new cardiac accelerator extracted from the suprarenal gland, A., 1160.
 Cameron Appliance Co. See Dissel, *T. A.*
 Camilleri, *L.*, characteristics of celluloses, oxycelluloses, and hydrocelluloses, A., 48.
 Caminade, *R.*, Mayer, *A.*, and Vallée, *H.*, content of phospholipins in the submaxillary gland, and the physiological activity of this gland, A., 540.
 Cammerer, *I. S.*, insulation against heat and cold, B., 505.
 modern methods of insulation, B., 505.
 Camp, *A. D.*, chipping and abrasion tests for paint coatings on metal, B., 719.
 Camp, *H. W.*, and Doherty Research Co., treatment of hydrocarbon oils, (P.), B., 291.
 Campa, *M.*, effect of X-rays on the crystallisation of antimony, A., 114.
 Campardou, *J.*, manufacture of solid, liquid, and gaseous hydrocarbons, (P.), B., 885.
 Campardou, *J.*, and Séon, *M.*, decomposition of acid anhydrides; preparation of anhydrides by direct dehydration of acids, A., 393.
 Campardou, *J.*, and Vergues, *J.*, use of wood charcoal as catalyst in preparation of methyl alcohol from carbon monoxide and hydrogen, (P.), B., 596.
 Campbell, *A. J.* See Moore, *B. J.*
 Campbell, *A. N.*, density and electrostriction of dilute manganese salt solutions, A., 473.
 Campbell, *A. N.* See also Findlay, *A.*
 Campbell, *A. W.* See Coleman, *G. H.*
 Campbell, *C.*, and Finch, *A. C.*, striated photographic records of explosion waves. II. Explanation of the striae, A., 1099.
 Campbell, *C. H.*, and American Glue Co., rubber compositions, (P.), B., 937.
 Campbell, *E. D.* See Nicolet, *B. H.*
 Campbell, *F. L.* See Rudolfs, *W.*
 Campbell, *F. S.* See Duggs, *S. H.*
 Campbell, *J.*, [apparatus for] drying crops, (P.), B., 684.
 Campbell, *J. A.*, effects of breathing carbon dioxide and oxygen mixtures on the carbon dioxide and oxygen tensions in the tissues, A., 1389.
 Campbell, *J. M.*, Lovell, *W. G.*, and Boyd, *T. A.*, importance of mixture ratio in rating fuels or knock, B., 882.
 Campbell, *M. H.*, Prucha, *M. J.*, and Brannon, *J. M.*, [cow's milk], B., 138.
 Campbell, *N. R.*, photo-electric properties of thin films of the alkali metals, A., 1297.
 Campbell, *N. R.* See also General Electric Co.
 Campbell, *R. C.*, and United Filters Corporation, recovering sugar values, (P.), B., 940.
 Campbell, *R. H.*, and Sparklets, Ltd., manufacture of containers, or capsules, for liquids, or gases, under pressure, (P.), B., 880.
 Campbell, *S. E.* See Ihrig, *H. K.*
 Campbell, *S. G.* See Rayner, *A.*
 Canadian Electro Products Co., Ltd., and Matheson, *H. W.*, plastic and lacquer compositions of nitrocellulose, (P.), B., 237.
 Canadian Electro Products Co., Ltd. See also Matheson, *H. W.*, and Reid, *H. S.*
 Canadian General Electric Co., Ltd., and Asp, *E. T.* [nickel-copper] alloys, (P.), B., 789.
 Canals, *E.*, and Daucan, (*Mlle.*) *G.*, calcium and magnesium content of some plants of the Mediterranean area, A., 1162.
 Canals, *E.*, and Gombert, (*Mlle.*) *P.*, invertase, A., 1400.
 Canals, *E.*, and Mousseron, *M.*, distilled water for biological purposes, A., 804.
 Canals, *E.*, and Suiffet, *P.*, physical determinations of some iodine preparations used in pharmacy, B., 873.
 Canaud, electrolysis of water with alternating current, A., 489.
 Candlin, *E. J.*, and Schryver, *S. B.*, cell-wall substances of plants; chemical changes taking place during lignification, A., 1162.
 Canfield, *R. H.*, internal friction in metals, A., 1180.
 Cann, *J. A.* See Harrop, *E. R.*
 Cann, (*Miss*) *J. Y.*, and Gilmore, *K. E.*, system sodium oxide-silica-water. II. Relationship between composition and b. p. of aqueous solutions of sodium silicate, A., 243.
 Cann, (*Miss*) *J. Y.* See also Randall, *M.*
 Cannan, *R. K.*, and Knight, *B. C. J. G.*, dissociation constants of cystine, cysteine, thioglycollic acid, and α -thiolactic acid, A., 128.
 Canneri, *G.*, double salt formation between thallous carbonate and carbonates of the rare earths, A., 33.
 hydroxylaminomolybdates and complex molybdomolybdates; action of hydroxylamine on paramolybdates, A., 260.
 vanado-vanadates, A., 380.
 Canning, *T. F.*, and Clark, *R. G.*, manufacture of coal gas, (P.), B., 631.
 Canning & Co., Ltd., *W.*, and Pope, *G. A.*, perforated container for rotating-barrel electroplating apparatus, (P.), B., 760.
 Cannon, *H. B.*, distillation of [carbonaceous] materials, (P.), B., 116.
 Cannon, *H. C.* See Mendel, *L. B.*
 Canon, *F. A.*, Andrews, *C. E.*, and Selden Co., carrying on catalytic reactions, (P.), B., 112*.
 Cantarow, *A.* See Caven, *W. R.*
 Cantelo, *R. C.*, second law of thermodynamics in chemistry, A., 955.
 Capato, *E.* See Ruzicka, *L.*
 Cape, *A. T.*, and Midwest Metallurgical Corporation, production of rimmed steel ingots, (P.), B., 575.
 Capiau, *G.*, Gauquier, *M.*, and Lahaut, *L.*, filling cracks in the brickwork of ovens, (P.), B., 369.
 removal of graphite incrustations from ovens, particularly coke ovens, (P.), B., 469.
 Capicotto, *J. V.*, and Dubilier Condenser Corporation, making of electric conductors, (P.), B., 790.
 Cappelli, *G.*, Wood's light for the detection in wheat flour of extraneous and harmful seeds and of extraneous mineral substances, B., 67.
 Capps, *A. W. F.*, improving the colour and purity of juices extracted from sugar beet, (P.), B., 652.
 Carale, (*Mlle.*) *A.* See Ionesco-Matin, *A.*
 Carbery, *M.*, and Finlow, *R. S.*, artificial farmyard manure, B., 497.
 Carbide & Carbon Chemicals Corporation, recovery of absorbable substances from gaseous mixtures, (P.), B., 508.
 Carbide & Carbon Chemicals Corporation. See also Curme, *G. O.*, jun., and Ray, *A. B.*
 Carboloid Products Corporation. See Aiken, *E. L.*
 Carbonisation Industrielle (Soc. Anon.) See Enders, *A.*
 Carborundum Co., Ltd., kilns, (P.), B., 801.
 Carborundum Co., Ltd., and Hartmann, *M. L.*, manufacture of silicon carbide refractory articles, (P.), B., 712.
 [self-dressing] abrasive articles, (P.), B., 749.
 Carborundum Co., Ltd. See also Geiger, *C. F.*, and Johnson, *B. M.*
 Carburol A.-G., conversion of high-boiling into low-boiling hydrocarbons, (P.), B., 806.
 Cardile, *G.*, and Industria Articolli Caoutchouc (I.A.C.), manufacture of fabrics resisting the disaggregating action of "yperite" or like gases, (P.), B., 637.
 Cardoso, *G. M.*, X-ray fine structure of cyanite and staurolite, A., 940.

- Cardwell, A. B., photo-electric and thermionic properties of iron, A., 808.
- Careggio, L. See Schiaparelli, C.
- Caress, A., and Rideal, E. K., chemical reactions of carbon monoxide and hydrogen after collision with electrons, A., 1198.
- Carette, M., effect of metallic salts on plant growth, A., 334.
- Carey, W. F. See Synthetic Ammonia & Nitrates, Ltd.
- Cario, G. See Kaplan, J.
- Carl, F., and Riedel, C., manufacture of material for road surfaces, floors, etc., (P.), B., 525.
- Carl, R., electrolytically separating alloys of silver with other precious or base metals, (P.), B., 863*.
- Carletti, O., reaction between phenacetin and acetaldehyde, A., 632.
- Carlier, J., treatment of granular material in mixing and filtering vats, (P.), B., 319.
- Carline, J. C., pulverising and separating machinery, (P.), B., 42*.
- Carlisle, C. G. See De Silva, F. A.
- Carlisle, P. J. See Magill, P. La F.
- Carlshütte Akt.-Ges. für Eisengiesserei & Maschinenbau, distillation of carbonaceous substances, (P.), B., 251.
- Carlson, A., briquetting [of iron ores, etc.], (P.), B., 373*.
- Carlson, C. L. See Fair, G. M.
- Carlström, A. B., Ege, R., and Henriques, V., reaction of tissues, A., 1271.
- Carlton, R. P. See Minnesota Mining & Manufacturing Co.
- Carman, A. P., and Schmidt, C. C., arrangement of the electrometer method for measuring the dielectric constants of electrolytes, A., 106.
- Carmichael, E. A. See Linder, G. C.
- Carmichael, E. B., detoxification of and immunity production to ricin by sodium ricinoleate, A., 547.
- Carmichael, F., catalytic action in the oxidation of sulphides and arsenides, A., 850.
- Carmichael, J. F., and Carmichael & Co., Ltd., J. F., distillation of tar and other viscous substances, and apparatus therefor, (P.), B., 262.
- Carmichael, (Miss) N. M. See Emeléus, K. B.
- Carmichael & Co., Ltd., J. F. See Carmichael, J. F.
- Carnahan, T. S., and Union Minière du Haut-Katanga, concentration of oxidised ores, (P.), B., 609.
- Carney, S. C., and Roxana Petroleum Corporation, manufacture of ice crystals, (P.), B., 353.
- Carnot, P., and Gruzewska, Z., determination of constituents of bile after injection and absorption of sodium hydrogen carbonate, A., 320.
- Caro, N., and Frank, A. R., production of high-percentage nitric acid, (P.), B., 402.
- production of compounds of nitrogen and oxygen from ammonia, (P.), B., 522.
- production of metal cyanamides or mixtures containing the same, (P.), B., 710.
- Caro, N. See also Frank, A. R.
- Carobbi, G., isomorphism of tervalent molybdenum and iron, A., 350.
- molybdates of lanthanum and sodium, A., 381.
- olivine of Linosa (Pelagic Islands), A., 987.
- Carobbi, G., and Tancredi, G., tungstates of cerium and sodium, A., 381.
- Carothers, W. H., Bickford, C. F., and Hurwitz, G. J., preparation and base strengths of some amines, A., 54.
- Carpenter, C. B., and Manuel, W. A., laboratory agitator, A., 1348.
- Carpenter, D. C., influence of salts on the optical rotation of gelatin. I., A., 125.
- Carpenter, D. C., Dahlberg, A. C., and Henning, J. C., grading of commercial gelatin, and its use in the manufacture of ice cream, (P.), B., 722.
- Carpenter, D. C. See also Dahlberg, A. C.
- Carpenter, H. C. H., and Tamura, S., inner crystal structure of some native metal, A., 503.
- Carpenter, H. C. H. See also May, R.
- Carpenter, J. A., composition of petroleum (kerosene and other) fractions, B., 736.
- Carpenter, L. G., and Stoodley, L. G., characteristic infra-red vibrations of certain crystals of the rock-salt type, A., 694.
- Carpenter, W. C., dryer, (P.), B., 175.
- Carpentier, G., and Brigaudet, M., quantitative variations of urinary creatinine during muscular work and physical exercise, A., 198.
- Carpentier, P., production of material [artificial resin] resembling glass, (P.), B., 826.
- Carpow, J. B. See Chem. Fabr. Heppes & Co., G.m.b.H.
- Carr, A. R., and Rente, A. M., [determination of] total carbon in coal, B., 468.
- Carr, F. H. See British Drug Houses, Ltd.
- Carr, J. M. See Moss, E. G.
- Carr, R. H., toxicity of colloidal arsenic to plants, A., 562.
- Carr, R. H., and BeMiller, L. N., burnt limestones in relation to quality of Bordeaux mixtures, B., 497.
- Carr, W. M., production of coal gas, (P.), B., 357.
- Carr-Hill, W. F., grinding mills, (P.), B., 657.
- Carrara, G., Doebner's reaction, A., 1024.
- Carré, P., iodometric determination of phosphorous acid and the use of sodium hydrogen carbonate in iodometry, A., 384.
- benzyl chloromethyl ether and dibenzylformal, A., 880, 1003*.
- Carré, P., and Baranger, P., action of aniline on vanillin, A., 291.
- Carrelli, A., breadth of some lines of the mercury spectrum, A., 1293.
- Carreras, R. S., manufacture of white lead by electrolysis, (P.), B., 903.
- Carriock, D. B., effect of freezing on the respiration of the apple, A., 1407.
- Carrier, W. H., and Carrier Engineering Corporation, [means for removing non-condensable gas from] refrigerating systems, (P.), B., 145.
- Carrier Engineering Co., Ltd., and Robertson, K. J. R., treatment of vegetable substances [tea leaf], (P.), B., 912.
- Carrier Engineering Corporation. See Carrier, W. H.
- Carrière, ethyl alcohol from vegetable matter, B., 47.
- Carrière, and Guibert, determination of organic matter in waste mixed acid and of carbon in nitrocellulose, B., 655.
- Carrière, E., and Brunet, grape seed oil, B., 130.
- Carringer, J. R., and Standard Oil Development Co., control of pyrolytic conversion [of hydrocarbon oils], (P.), B., 252.
- Carroll, E. J., and American Laundry Machinery Co., centrifugal extractor, (P.), B., 73.
- Carroll, H., continuous transformation into light hydrocarbons of the heavy hydrocarbons from petroleum and the like, (P.), B., 919.
- Carroll, J. C., anti-corrosive heat-resisting paint or composition, (P.), B., 866.
- Carroll, S. J., and Eastman Kodak Co., cellulose ether composition, (P.), B., 295.
- Carson, B. G. See Wheeler, A. S.
- Carson, C. M., and Goodyear Tire & Rubber Co., preparation of dithiazyl disulphide, (P.), B., 516*.
- Carson, C. M. See also Goodyear Tire & Rubber Co., and Park, C. R.
- Carson, F. L., mixing metallic salt [copper sulphate] with asphaltic compounds, (P.), B., 672.
- Carst, A., and Ladenburg, R., anomalous dispersion of ionised gases. IV. Anomalous dispersion of hydrogen; true intensity ratio of the hydrogen lines H_{α} and H_{β} , A., 573.
- Carstens, H. See I. G. Farbenind. A.-G.
- Carstensen de Segundo, E., apparatus for defibrating cotton seed, the decorticated hulls of cotton seed, or other fibre-bearing seeds, and for segregating and collecting the detached fibres, (P.), B., 259.
- Carswell, H. E., and Adkins, H., relation of structure of ketones to their reactivity and affinity in acetal formation, A., 274.
- Carswell, T. S., physical properties of *o*-dichlorobenzene, A., 1125.
- Carswell, T. S., and Pfeifer, C. E., physical properties of salicylaldehyde, A., 1009.
- Carter, A. S., synthesis of heptane- $\alpha\delta$ -dicarboxylic acid, A., 990.
- "furylangelic acid," A., 1139.
- Carter, C. B., and Karpen & Bros., S., production of phenol-methylene resins and alcohols from methylals, (P.), B., 131.
- Carter, C. W., photo-oxidation of certain organic substances in presence of fluorescent dyes, A., 632.
- Carter, F. E., gold-silver-copper alloys, B., 675.
- platinum metals and their alloys, B., 675.
- Carter, J. S., polyiodide equilibrium in aqueous and salt solutions, A., 1094.
- Carter, J. S., and Hardy, R. K., salting-out effect; influence of electrolytes on solubility of *m*-cresol in water, A., 243.
- Carter, N. M. See Clark, R. H.
- Cartaret, G., preparation of white titanium pigments, (P.), B., 341.
- Cartier, P. See Riou, P.

- Cartledge, R. E., and Snyder, H. L., effect of the proportion of sulphur in vulcanising [rubber] reclaim, B., 238.
- Carwile, L. C. K., wave-lengths in the nitrogen peroxide absorption spectrum, A., 1170.
- Cary, C. A., colorimetric determination of free tryptophan in blood, A., 1047.
- Cary, C. A., and Meigs, E. B., free tryptophan in cow's blood and its utilisation in milk secretion, A., 1047.
- Casaburi, V., softening of hides, B., 205.
- manufacture of insecticides, disinfectants, and fertilisers, (P.), B., 498.
- Casale, L., preparation of urea from carbon dioxide and synthetic ammonia, (P.), B., 474*.
- Casale-Sacchi, M., production of hydrogen-nitrogen mixtures, (P.), B., 603.
- production of hydrogen, (P.), B., 858.
- Casaleto, J. M. See Charrier, G.
- Case, E. M., and McCullagh, D. R., pancreatic extracts in relation to lactic acid formation in muscle, A., 1049.
- Casey, M. T. See Nolan, T. J.
- Casimir, E., determination of asphalt in minerals, B., 250.
- Caspari, W. A., crystallography of some simple benzene derivatives, A., 110.
- manufacture of oxygenated products from hydrocarbons or oxidisable derivatives of hydrocarbons, (P.), B., 598*.
- Cassel, H., adsorptive combination, A., 1317.
- Cassel, L. See Braun, J. von.
- Cassel Cyanide Co., Ltd., and Ewan, T., manufacture of carbon from carbon monoxide, (P.), B., 738.
- Cassella & Co., G.m.b.H., L., manufacture of dyes of the anthrazone series, (P.), B., 225, 398.
- Cassella & Co., G.m.b.H., L., Benda, L., and Schmidt, Werner, manufacture of derivatives of tertiary aromatic bases containing sulphur and phosphorus, (P.), B., 624.
- Castele, E. van de. See Verschaffelt, J. E.
- Castellani, A., symbiotic fermentation, A., 797.
- Castille, A., and Ruppel, E., ultra-violet absorption spectra of alkaloids of the tropane group and of some biological and pharmaceutical products, A., 920.
- Castille, A. See also Bruylants, P.
- Castner-Kellner Alkali Co., Ltd. See Moore, J. W.
- Caswell, R. G. See Barnard, A. E.
- Catalán, M. A., structure of the cobalt spectrum. II., A., 338.
- Catalpo, Ltd. See Fryer, P. J.
- Cathala, J., photochemical synthesis of carbonyl chloride, A., 254.
- general theory of photochemical reactions of halogens, A., 490.
- Cathcart, E. P., and Markowitz, J., hypoglycaemic action of dihydroxyacetone in man, A., 88.
- influence of various sugars on the respiratory quotient, A., 545.
- Catineau, A. See Society of Chemical Industry in Basle.
- Catlow, B. See Blythe & Co., Ltd., W.
- Catoire, M., does the theory of complexity of micelles find application in the study of cellulose? I. and II., A., 839.
- Catoire, M. See also Malfitano, G.
- Cattelain, E., action of iodine in alkaline media on phenylisocrotonic acid: some new mixed anhydride derivatives of benzoylacrylic acid, A., 173.
- preparation of *m*-iodobenzoic acid; purification of *o*-iodobenzoic acid, A., 173.
- Cattoir, F. R. See Parks, G. S.
- Cau, M., birefringence and dichroism of thin layers of iron obtained by distillation, A., 695.
- Caulaert, C. van. See Dill, D. B.
- Cauquil, (Mlle.). See Godchet, M.
- Cauwood, J. D., Davidson, J. H., and Dimpleby, V., analysis of opal and alabaster glasses, B., 404.
- Cauwood, J. D. See also Bowmaker, E. J. C.
- Cavanagh, B., differential potentiometric titration. I. Simple method. II. Refined methods, A., 607.
- Cave, H. M. See Gray, J. A.
- Cavel, L., activated sludges, B., 246.
- Caven, R. M., and Johnston, W., equilibrium in the system $\text{CuSO}_4\text{-Na}_2\text{SO}_4\text{-H}_2\text{O}$ at 0° , 25° , and 37.5° , A., 20.
- double salt formation. I. Formation of copper sodium sulphate. II. Formation of manganese potassium and ammonium sulphates, A., 367*.
- equilibrium in the systems $\text{ZnSO}_4\text{-Na}_2\text{SO}_4\text{-H}_2\text{O}$ at 0° and 25° ; $\text{MnSO}_4\text{-Na}_2\text{SO}_4\text{-H}_2\text{O}$ at 0° , 25° , and 35° ; and $\text{CoSO}_4\text{-K}_2\text{SO}_4\text{-H}_2\text{O}$ at 25° , A., 1191.
- Caven, W. R., and Cantarow, A., determination of calcium in whole blood, A., 1045.
- Cazaux, P. See Massy, R.
- Cazzani, U., sterilisation of hexamethylenetetramine solutions, B., 68.
- Čech, V. See Novák, J.
- Cederberg, I. W., catalytic combustion of ammonia-oxygen mixtures, (P.), B., 404*.
- Cederberg, I. W., and Patent Verwertungs Akt.-Ges. "Alpina," apparatus for the synthetic production of ammonia from the elements, (P.), B., 641.
- Cejka, L. See Leuck, G. J.
- Celanese Corporation of America. See Dickie, W. A., Ellis, G. H., and Olpin, H. C.
- Celeri, A. See Levi, G. R.
- Celli, P., preparation of a wool-like material from jute, *Corchorus capsularis*, etc., (P.), B., 187, 744*.
- Cellulose-Fabr. Okriftel A./M. P. Offenheimer. See Offenheimer, P.
- Centnerszwer, M., catalysis and the dissolution of aluminium, A., 252.
- Centnerszwer, M., and Krustinsons, J., influence of grain size on the dissociation pressure of solids, A., 10.
- influence of grain size on the dissociation pressure of solids. II. Lead carbonate, A., 593.
- Central Alloy Steel Corporation. See FitzGerald, J. G.
- Centrifix Corporation. See Hawley, C. G.
- Ceramic Patent Holdings, Ltd. See Mellor, J. W.
- Cerchez, V. See Locquin, R.
- Cerecedo, L. R., physiology of the pyrimidines, A., 200.
- Cerezo, J., supposed stereoisomerism in the fluorene series, A., 406.
- Cerini, L., apparatus for the purification of impure solutions of caustic soda or the like on osmotic principles, (P.), B., 157.
- Cernătescu, R., influence of salts on the solubility of water in phenol, A., 579.
- Cernătescu, R., and Vascauțanu, (Mme.), determination of cobalt as Co_2O_3 , A., 387.
- Cernik, B., and Stoces, B., plant for extracting gold from seawater, (P.), B., 489.
- Černýh, V. See Kurnakov, N. S.
- Cerri, V. L. See Silvano, E.
- Cerrina, C. See Ponzio, G.
- Cervinka, J. See Krepelka, H.
- Cesáro, G., crystal form of atoxyl [sodium *p*-aminophenylarsinate], A., 820.
- crystal form of artificial vivianite, A., 821.
- Cezanne, R. M. A. E., and Société d'Application du Gaz aux Moteurs "S.A.G.A.M.," gas producers and plant in connexion therewith, (P.), B., 738.
- Chabannais, J., catalytic production of metal resins, etc., [driers], (P.), B., 792.
- Chaborski, (Mlle.) G. See Longinescu, G. G.
- Chadwell, H. M., f. p. of aqueous solutions of hydrochloric acid, A., 15.
- Chadwick, R., constitution of alloys of magnesium and zinc, B., 268.
- Chahovitch, X., Arnovljévitch, V., and Vichnjitch, M., changes in the cholesterol content of rabbit's serum after intracardial injection of peptone, A., 1278.
- Chaikoff, I. L., and Weber, J. J., formation of sugar from fatty acids in depancreatised dogs injected with adrenaline, A., 553.
- Chaix, A. See Laillet, C.
- Chaize. See Colombier.
- Chakravarti, D. See Sen, R. N.
- Chakravarti, D. N. See Dhar, N. R.
- Chakravarti, G. C., thiophthalic acids. I., A., 1241.
- Chakravarti, G. C., and Saha, J. M., organic cyclic polysulphides; condensation of ethylene mercaptan with di- and tri-chloroacetic acids, A., 1214.
- Chakravarti, M. N., and Dhar, N. R., derivation of an adsorption equation from Langmuir's theory of residual valencies, A., 120.
- adsorption on barium sulphate and ultramicroscopical examination, A., 231.
- applicability of Chakravarti and Dhar's adsorption equation, A., 701.
- Chakravarti, M. N. See also Dhar, N. R.
- Chakravarty, K., equilibrium constants of the reactions $\text{CO} + 3\text{H}_2 \rightleftharpoons \text{CH}_4 + \text{H}_2\text{O}$; $\text{CO}_2 + 4\text{H}_2 \rightleftharpoons \text{CH}_4 + 2\text{H}_2\text{O}$; and $2\text{CO} + 2\text{H}_2 \rightleftharpoons \text{CH}_4 + \text{CO}_2$, A., 477.

- Chakravarty, K., and Ghosh, J. C., catalytic formation of methane from carbon monoxide and hydrogen. III. Study of various catalysts, A., 28.
- Chakravarty, K. See also Ghosh, J. C.
- Chalas, A., and Chalas, E., soluble food product having fresh kola as a base, (P.), B., 464*.
- Chalas, E. See Chalas, A.
- Chalk, (Miss) M. L. See Foster, J. S.
- Chalklin, F. C. See Richardson, O. W.
- Chall, P. See Roth, W. A.
- Challenger, F., Klein, L., Subramaniam, V., and Walker, T. K., formation of citric acid by *Aspergillus niger*, A., 447.
- Challenger, F., and Peters, A. T., nitration of aromatic thiocyanates and selenocyanates, A., 750.
- Challenger, F. See also Walker, T. K.
- Chalmers, W., production of isomerides in the formation of the double linking by dehydration of substituted alcohols, A., 1352.
- Chalmers, A. See Hérissé, H.
- Chalonge, D., [variation of] the layer of ozone in the upper atmosphere during the night, A., 389.
- Chalonge, D., nocturnal fluctuations of ozone, A., 863.
- Chamagne, G. J. B., apparatus for treatment of marine algæ, (P.), B., 325.
- Chamagne, G. J. B., extraction of the constituents of marine algæ, (P.), B., 604.
- Chaubard, P., and Michallet, L., chamoising of skins, B., 616.
- Chamberlain, G. D., and Vanderbilt Co., Inc., R. T., cleaning and pickling of metals, (P.), B., 527.
- Chamberlain, J. C. See De Ong, E. R.
- Chamberlin, D. S., and Clarke, D. R., flame speed of hydrogen sulphide, A., 1332.
- Chamberlin, D. S., and Rose, A., flicker of luminous flames, B., 881.
- Chambers, J. A., apparatus for the concentration of ores and other minerals and materials, (P.), B., 197.
- Chambers, R. See Cohen, B.
- Chambers, R. L. See Whessoe Foundry & Engineering Co., Ltd.
- Chambers, W. H., and Milhorat, A. T., muscular exercise and nitrogenous metabolism of dogs, A., 792.
- Chambers, W. H. See also Milhorat, A. T.
- Chambige, P. See Baume, G.
- Chambon, M., synthesis of tropic acid, A., 884.
- Chamié, (Mlle.) C., atomic groupings [of radioelements], A., 103.
- Chamié, (Mlle.) C., atomic groupings for emanations and mixtures of radioelements, A., 810.
- Chamot, E. M., and Bedient, H. A., uranyl acetate as a reagent in microscopic qualitative analysis, A., 385.
- Chamot, E. M., and Mason, C. W., microchemical reactions of the acids of chlorine, bromine, and iodine, A., 978.
- Champion Porcelain Co. See Riddle, F. H.
- Champney, H. H., and Hercules Powder Co., [permitted] explosive, (P.), B., 173.
- Champy, C. See Bencan.
- Chance, H. M., centrifugal thickening of mixtures and clarifying of liquids, (P.), B., 352.
- Chandler, C. H., manufacture of a decolorising carbon, (P.), B., 325.
- Chandler, E. F., balanced motor fuel, (P.), B., 394.
- Chandler, H. C. See Whipple, M. C.
- Chandler, H. L. See Read, R. R.
- Chang, H. C., variations of blood-phosphorus in dextrose tolerance tests, A., 793.
- Chang, H. C., and Ma, W. C., tryptophan and the thyroid gland, A., 1278.
- Chang, H. C. See also Tung, P. C.
- Chang, K. S. See Randall, M.
- Channon, H. J., biological significance of unsaponifiable matter of oils. III. Fish-liver oils, A., 319.
- Channon, H. J., and Collinson, G. A., biological significance of unsaponifiable matter of oils. IV. Absorption of higher alcohols, A., 546.
- Chanoz, M., coloration of animal membranes with copper sulphate solutions, A., 1271.
- Chanussot, P., derivatives of fluorene: 2-chloro-fluorene and -fluorenone, A., 163.
- Chanussot, P., 2-iodofluorene, A., 163.
- Chanutin, A., effect of creatine on growth; its distribution in tissues of normal rats, A., 87.
- Chanutin, A., and Beard, H. H., effect of feeding creatinine on growth and on its distribution in the liver and muscles of normal mice, A., 917.
- Chanutin, A. See also Rose, W. C.
- Chapin, R. M., deflocculation of carbon black by saponin, acacia, gelatin, and casein, B., 4.
- Chapin, R. M., deflocculation and detergency, B., 417.
- Chapin, R. M., detergent experiments on cotton, B., 678.
- Chapman, A. C., chemical individuality of humulene, A., 646.
- Chapman, A. C., higher-boiling constituents of essential oil of hops, B., 501.
- Chapman, A. W., thermal decomposition of thiobenzanilide, A., 1004.
- Chapman, D. L. See Briers, F., and Brown, E.
- Chapman, E., Perkin, A. G., and Robinson, R., colouring matters of carajaya, A., 183.
- Chapman, E. See also British Dyestuffs Corporation, Ltd.
- Chapman, G. A., Wilkinson, E. W., and Minerals Separation North American Corporation, manufacture of [smokeless] coal briquettes, (P.), B., 700.
- Chapman, H., preparation of solder [in flake form], (P.), B., 528.
- Chapman, R. J. See British Thomson-Houston Co., Ltd.
- Chapman, S., approximate theories of diffusion phenomena, A., 470.
- Chapman, S., Brownian displacements and thermal diffusion of grains suspended in a non-uniform acid, A., 588.
- Chapman, S., molecular displacements in diffusing gas mixtures, A., 588.
- Chapman, W. B. See Andrews, C. W.
- Chappell, E. L., Roetheli, B. E., and McCarthy, B. Y., electrochemical action of inhibitors in the acid dissolution of steel and iron, B., 572.
- Chappell, M. L., Ziser, G. J., Moyer, E. L., and Standard Oil Co. of California, purification of mineral oils, (P.), B., 561.
- Chappuis, J., and Pignot, A., compression of town gas, B., 113.
- Charassieu, H. L. J. See Comptoir des Textiles Artificiels Soc. Anon.
- Charaux, C. See Bridel, M.
- Chargaff, R. See Feigl, F.
- Charik, M. See Pigulevski, G.
- Charit, A., phosphorus metabolism. II. and III., A., 1153.
- Charit, A., and Livschitz, A., phosphorus metabolism, A., 668.
- Charitonova-Cholodkovska, A. See Kiesel, A.
- Charlton, H. See Burton, D.
- Charlton, H. W., and American Cyanamid Co., phosphorus material, (P.), B., 312.
- Charlton, J., mechanical analysis of tropical soils, B., 311.
- Charpy, G., superficial hardening of steel, B., 16.
- Charpy, G., use of nickel in armaments, B., 126.
- Charpy, G., and Fingault, P., conditions of formation of cementite, B., 818.
- Charrier, G., [with Sala, C.], phenylene 2-aryltriazolylenes ketones and phenylene-2-phenyltriazolylenemethane: (1:2:3-triazole analogues of fluorene and fluorenone), A., 775.
- Charrier, G., and Crippa, G. B., [with Pagani, C., Rovida, E. and Azimonti, G.], polynuclear 1:2:3-triazoles and their oxidation products, A., 187.
- Charrier, G., and Crippa, G. B., [with Saraga, E.], action of hydrogen peroxide and of hypochlorous acid on anthracene, A., 52.
- Charrier, G., and Gallotti, M., [with Casaletto, J. M., Masciadri, L., and Greppi, E.], 2-aryl- $\alpha\beta$ -naphtha-1:2:3-triazoles, A., 186.
- Charrier, G., and Moggi, A., [with Ferri, C.], oxidation of cyclic hydrocarbons by an acetic acid solution of hydrogen peroxide, A., 51.
- Charvoz, P. See Dupare, L.
- Chase, M. F. See Skogmark, J.
- Chatelain, A., manufacture of moulded cement bodies, (P.), B., 266.
- Chater, W. J., and Mudd, J. S., physical characteristics of chromium sulphate solutions, B., 709.
- Chatillon, A., different magnetic states of the cobaltous ion, A., 454.
- Chatley, H., constitution of clay-mud, B., 14.
- Chattaway, F. D., and Bennett, R., interaction of chloral and arylhydrazines, A., 55.
- Chattaway, F. D., and Calvet, F., condensation of chloral with substituted phenols, A., 632, 750.
- Chattaway, F. D., and Coulson, E. A., 4:4'-dinitrobenzil, A., 761.
- Chattaway, F. D., and Coulson, E. A., mononitrobenzils and heteronuclear dinitrobenzils, A., 761.
- Chattaway, F. D., and Daldy, F. G., interaction of chloral and 2:4:6-trihalogen-substituted phenylhydrazines, A., 1338.
- Chattaway, F. D., and Humphrey, W. G., action of tolylhydrazines on dihydroxytartaric acid, A., 74.

- Chattaway, F. D., and Humphrey, W. G., imide ring closure in derivatives of diketosuccinic acid phenylsazone, A., 770.
- Chattaway, F. D., and Kellett, E. G., polymerides of aliphatic chloraldehydes, A., 1357.
- Chatterjee, B., and Robinson, R., orienting influence of free and bound ionic charges on attached simple or conjugated unsaturated systems. III. Nitration of *m*-nitrophenylbenzylsulphone, A., 51.
- Chatterji, A. C., and Dhar, N. R., condition of silver chloride and other sparingly soluble substances in gelatin, A., 708.
- Chatterji, M. P. See Neogi, P.
- Chattopadhyay, A. K. See Ray, P.
- Chauchard, A. and Chauchard, (Mme.), variations in the salinity of estuaries measured *in situ* by electrical conductivity, A., 147.
- Chauchard, (Mme.). See Chauchard, A.
- Chaudhury, S. G., effect of non-electrolytes on the stability of colloids. I. Arsenious sulphide sol, A., 1187.
- influence of concentration of a sol on its stability, A., 1090.
- Chaudhury, S. G. See also Mukherjee, J. N.
- Chaudron, G. See Huggett, J.
- Chaudun, (Mlle.) A. See Colin, H.
- Chauspied, A., production of sparkling wines, (P.), B., 208.
- Chauveau, L., and Vasseur, A., wines of Morocco, B., 104.
- Chaux, R., liquid fuels from coal, B., 433.
- Chaux, R. See also Moureu, C.
- Chavan, J. J. See Wieland, H.
- Chavanne, G., and Becker, P., side-chain derivatives of alkylcyclopentanes; tertiary alcohols, unsaturated and saturated hydrocarbons, A., 166.
- Chavanne, G., and De Vogel, (Mlle.) L., cyclopentane derivatives; preparation of 1:2-dimethylcyclopentane, A., 745.
- Chedler, R. B., manufacture of asbestos-cement and like slabs or tubes, (P.), B., 572.
- Chemical Construction Co. See Hechenbleikner, I.
- Chemical Products Co., production of ammonium phosphate, (P.), B., 815.
- Chemical Works, formerly Sandoz. See Chemische Fabrik vorm. Sandoz.
- Chemipulp Process, Inc. See Dunbar, T. L.
- Chemisch-Pharmazeutische Akt.-Ges. Bad Homburg, manufacture of quinine solutions, (P.), B., 624.
- Chemisch-Technische Ges.m.b.H., circulating apparatus for heating gases, (P.), B., 627.
- Chemische Fabrik auf Aktien (vorm. E. Schering), printers' ink, (P.), B., 24.
- diminishing or preventing loss of carbohydrates in root-crops when stored, (P.), B., 64.
- manufacture of colourless melted [pharmaceutical] products, (P.), B., 69.
- manufacture of iodine-substituted benzonitriles of the phenol ether type, (P.), B., 83.
- manufacture of fructose [xylulose] from inulin, (P.), B., 170.
- manufacture of acetic acid, (P.), B., 255.
- manufacture of substituted guanidines, (P.), B., 327.
- manufacture of new alkaloid salts of camphoric acid, (P.), B., 348.
- manufacture of hormone from the sexual organs, (P.), B., 348.
- preparation of active germinal gland substances in a water-soluble form, (P.), B., 348.
- manufacture of derivatives of 2-aminopyridine, (P.), B., 389.
- manufacture of disodium salts of sulphomethylaminometal-mercaptosulphonic acids, (P.), B., 427.
- manufacture of mixed alkaloid salts, (P.), B., 465.
- manufacture of metallomercapto-compounds, (P.), B., 692.
- manufacture of alkylated phenols and their hydrogenated products, (P.), B., 740.
- obtaining germ-gland hormones from vegetable organisms, (P.), B., 769, 836.
- manufacture of aliphatic auromercaptocarboxylic acids, (P.), B., 799.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Dohrn, M., and Thiele, A., manufacture of chloriodo-compounds of the quinoline series, (P.), B., 874.
- Chemische Fabrik auf Aktien (vorm. E. Schering), and Freund, E., production of unsaturated organic compounds [artificial resins], (P.), B., 532*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), and Meerwein, H., production of complex metal alcoholates [ethoxides], (P.), B., 922*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Schoeller, W., Feldt, A., Gehrke, M., and Borgwardt, E., pharmaceutical product, (P.), B., 348*, 465*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Schoeller, W., and Schmidt, K., manufacture of a composition of matter [halogen-substituted oxindole-3-carboxylic acids], (P.), B., 152*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Schoeller, W., and Schotte, H., manufacture of camphoric acids, (P.), B., 548*.
- manufacture of substituted glycol monoethers, (P.), B., 623.
- Chemische Fabrik auf Aktien (vorm. E. Schering), and Schotte, H., manufacture of aliphatic secondary amino-alcohols, (P.), B., 223.
- production of diacylisoithiocarbamide ether, (P.), B., 427*.
- symmetrical diarylised guanidines, (P.), B., 543*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), and Stephan, K., printing ink, (P.), B., 937*.
- Chemische Fabrik K. Albert G.m.b.H., manufacture of transparent lacquers, (P.), B., 866.
- Chemische Fabrik K. Albert G.m.b.H. See also Amann, A.
- Chemische Fabrik in Billwärdor vorm. Hell & Sthamer Akt.-Ges., and Kühlwein, F. L., production of high-grade products from raw coal, (P.), B., 514*.
- Chemische Fabrik in Billwärdor vorm. Hell & Sthamer Akt.-Ges. See also Kühlwein, F. L.
- Chemische Fabrik Frankfurt-West Landauer & Co., and Gutlohn, L., improvement of vegetable fibres, (P.), B., 889.
- Chemische Fabrik Griesheim-Elektron. See I. G. Farbenind. A.-G.
- Chemische Fabrik L. van der Grinten. See Grinten, F. van der.
- Chemische Fabrik Heppes & Co., G.m.b.H., and Carpoz, J. B., manufacture of agents for protection of plants and destruction of parasites, (P.), B., 240.
- Chemische Fabrik Johannisthal G.m.b.H., and Löwy, M., removal and utilisation of hydrogen sulphide from gas mixtures containing it and simultaneous production of manganese salts, (P.), B., 884.
- Chemische Fabrik Johannisthal G.m.b.H. See also Trostler, F.
- Chemische Fabrik Kalk Ges.m.b.H., and Oehme, H., manufacture of solid sodium hydrogen sulphite or sodium sulphite, (P.), B., 814.
- manufacture of glycol, (P.), B., 886.
- Chemische Fabrik L. Meyer, bactericides and fungicides for treatment of seeds, (P.), B., 240.
- Chemische Fabrik L. Meyer. See also Molz, E.
- Chemische Fabrik Pott & Co. See Pott, R. H., and Sajitz, R.
- Chemische Fabrik H. Sander & Co., A.-G., production of nutrient material with a high vitamin content, (P.), B., 911.
- Chemische Fabrik vorm. Sandoz, production of substantive dyes of the stilbene series fast to alkali, (P.), B., 46.
- treatment of natural and artificial cellulose fibres with alkali, (P.), B., 228.
- production of 4-nitro-2-aminophenoxy-ethanol or -propanediol [4-nitro-2-aminophenyl β -hydroxyethyl or β -dihydroxypropyl ether], (P.), B., 255.
- oxidation of aldoses, (P.), B., 461*.
- preparation of easily soluble derivatives of *m*-aminobenzoic esters, (P.), B., 623.
- preparation of bile acid salts of cinchona alkaloids, (P.), B., 769.
- preparation of emetine, (P.), B., 769*.
- preparation of effect threads, (P.), B., 812.
- extracting the cardio-active substance of *Bulbus scillæ*, (P.), B., 874.
- Chemische Fabrik vorm. Sandoz. See also Billeter, O., Boeniger, M., Burekhardt, E., Karrer, P., Knecht, O., Müller, Fritz, Stocker, E., and Stoll, A.
- Chemische Fabrik Stockhausen & Co., production of strongly frothing soaps, (P.), B., 418.
- treatment of oils or fats or mixtures of the same or fatty acids for the production of sulphuric acid compounds, (P.), B., 678, 718.
- Chemische Fabrik H. Stoltzenberg, apparatus for rapidly heating to high temperatures small quantities of vaporisable solid material, (P.), B., 2.
- Chemische Fabrik H. Stoltzenberg, and Janisch, R., protection of plants from animal pests, (P.), B., 870.
- Chemische Fabrik J. Wiernick & Co., Akt.-Ges., preparation of aqueous emulsions of paraffins, (P.), B., 81.
- Chemische Werke Carbon Ges.m.b.H., manufacture of highly active carbon blocks or granules, (P.), B., 180.
- treatment of gases, vapours, or liquids, (P.), B., 431.

- Chemnitz, F., preparation of phenyl salicylate, A., 173.
 preparation of coniine and conhydrine, A., 309.
 preparation of pilocarpine, A., 309.
 preparation of colchicine, A., 311.
 preparation of bromocamphor, A., 766.
 production of salts of noble metals for electroplating, B., 88.
 brilliant gold, B., 127.
 manufacture of potassium ferrocyanide, B., 190.
 manufacture of barium and strontium nitrates, B., 567.
 gold paint manufacture, B., 647.
 preparation of 2-phenylquinoline-4-carboxylic acid [atophan], B., 767.
- Chen, K. K., comparative study of synthetic and natural ephedrine, A., 920.
- Chen, T. T. See Lin, K. H.
- Chenail, J. See Laillet, C.
- Chenard, V. See Ferrier, O.
- Chenel, L. A., determination of alcohol, ether, and water in the solvent vapours eliminated during the drying of powders, B., 655.
- Cherbuliez, E., and Rosenberg, P., [electrical conductivity of] silicates, A., 940.
- Cherchez, V., use of magnesium alkoxides in the preparation of ethers, A., 989.
- Chesebro, P. R. See Pease, R. N.
- Chessa, G. See Sanna, A.
- Chesters, J. H., reproduction of scales by electric discharge to a photographic plate, A., 1110.
- Chevalet, P. A. A. See Cusin, M., and Société Lyonnaise de Soie Artificielle.
- Chevenard, P., influence of an addition of chromium on the internal friction of reversible ferronickels, B., 18.
 [iron] alloys with a high content of nickel and chromium, B., 301.
 electrical properties of ferronickels containing added chromium, B., 301, 714.
- Chevenard, P., and Portevin, A., causes of the variation in volume accompanying the hardening of light aluminium-copper alloys, B., 301.
- Chéveneau, C., magnetic susceptibility of aluminium, A., 576.
- Chéveneau, C., and Vaurabourg, refracto-dispersometer, A., 609.
- Chicago Crucible Co. See Hottinger, A. F.
- Chicago Pneumatic Tool Co., and Davenport, R. W., refrigerating systems or apparatus, (P.), B., 467.
 compression refrigerating process and apparatus, (P.), B., 734.
- Chicago Pneumatic Tool Co. See also Davenport, R. W.
- Chicago Trust Co. See Kus, T. G.
- Chichocki, J. See Pecalski, T.
- Chick, H., and Roscoe, M. H., dual nature of water-soluble vitamin-B. II. The effect on young rats of vitamin-B₂ deficiency; biological assay of vitamin-B₂, A., 800.
- Chicle Development Co. See Yates, S. S.
- Chidester, W. I., freeing cellulose fibres from vegetable material, (P.), B., 330.
- Chikano, M., influence of amino-acids and their derivatives on adrenaline hyperglycemia, A., 448.
- Child, A. M. See Stephens, E. L.
- Child, E. See Micka, J.
- Child, R. O. See Anderson & Son, Ltd., D.
- Childs, W. H. J., distribution of intensity in the band spectrum of helium: the band at 4650, A., 449.
 methods of estimating the intensities of spectral lines, A., 679.
- Chiles, H. M., direct nesslerisation of Kjeldahl digestions, A., 312.
- Chilowsky, C., apparatus for manufacture of gas from oils, (P.), B., 883.
- China, F. J. E., minute disintegration of substances; disintegrating device; production of suspensions, (P.), B., 915*.
- Chindemi, A. See Condorelli, P.
- Chipman, H. R., and McIntosh, D., liquid hydrogen sulphide as an ionising medium, A., 845.
 devitrification of old glass, B., 569.
- Chipman, J., entropy of vaporisation of non-associated liquids, A., 1315.
- Chiray, M., and Cuny, L., colorimetric determination of bile salts in duodenal fluid, A., 320.
- Chirnoaga, E., chemical method of preparing carbon hydrosol, A., 359.
- Chirnoaga, E. See also Svedberg, T.
- Chirnside, R. C. See Singleton, W.
- Chirvinsky, P., system iron-oxygen-sulphur in the formation of stone meteorites, and the mineralogical nature and genesis of the black veins in such meteorites, A., 268.
- Chisholm, F. K., tobacco substitute with therapeutical properties, (P.), B., 769.
- Chislet, H. See British Thomson-Houston Co., Ltd.
- Chistoni, A., preparation and stabilisation of colloidal mercury, A., 359.
- Chittenden & Simmons, Ltd., and Gunnell, W. B., concrete mixers, etc., (P.), B., 94.
- Chitty, C. W., Kent-Jones, D. W., and Woodlands, Ltd., apparatus for heat treatment of cereal substances, (P.), B., 690.
- Chivers, J. C. A., and Smiles, S., derivatives of 1:3-dithiolan and of 1:3-dithian, A., 647.
- Chlopin, V., helium content of uraninite from Karelia, A., 268.
 preparation of radium from Russian sources, A., 495.
- Chlopin, V., and Polessitsky, A., fractional crystallisation of radioactive substances. III. Distribution of radium between solid crystalline barium chloride dihydrate and its saturated aqueous solution at 0° and 35°, A., 830.
- Chlopin, V. See also Lebedinski, V. V.
- Chmura, T., distillation [of various substances] and generation of [high-pressure] steam, (P.), B., 439.
- Chodalevitch, T. See Tancov, N. V.
- Choi, S. el. See Nomura, H.
- Cholatnikov, C. See Zetzsche, F.
- Cholewinski, S., bearing metal, (P.), B., 20.
- Cholnoky, L. von. See Zechmeister, L.
- Chomitsch, A. See Kostytshev, S.
- Chorazy, M. See Swientoslawski, W.
- Chorley, P. See British Dyestuffs Corporation, Ltd.
- Chou, T. Q., alkaloids of Chinese *Corydalis ambigua*, Cham. et Sch. I., A., 927.
- Chouchak, D., presence of glycuronic acid in wines made from diseased or rot-infested grapes, B., 281, 462*, 543*.
- Choucroun, (Mlle.), selective permeability of membranes; influence of the mobility of the ions on the polarisation, A., 702.
 rule for the diffusion of electrolytes in charged gels, A., 953.
- Choucroun, (Mlle.). See also Perrin, J.
- Choudary, K. S., and Yoganandam, E., ayaram bark. I., B., 378.
- Choudhuri, S. P. R. See Mukherjee, J. N.
- Chowdhury, J. K., and Bagchi, R. C., alumina gel as a desulphurising agent in petroleum refining, B., 324.
- Chowdhury, J. K., and Das, R. K., delignification of jute fibre, B., 475.
- Chrétien, A., quaternary system: water, sodium nitrate, sodium chloride, sodium sulphate, between 100° and 0°, A., 20, 711.
- Chrétien, A. See also Piettre, M.
- Chrisman, A. E. See Wood, C. E.
- Chrisman, C. S. See Humphreys & Glasgow, Ltd.
- Chrisp, G., apparatus for purifying coal gas, (P.), B., 79.
- Christ, R. H. See Shimer, W. R.
- Christensen, C. E. See Baggesgaard-Rasmussen, H.
- Christensen, C. W. See North, C. O.
- Christensen, J. H., production of coloured photographic pictures, (P.), B., 503.
- Christensen, N. C., manufacture of anhydrous aluminium chloride, (P.), B., 603.
- Christiansen, B., method of roasting and reducing ores, (P.), B., 757.
- Christiansen, J. A., osmotic pressure of protein solutions containing salts, A., 585.
 theory of chain reactions, A., 1335.
 constitution of some polythionates, A., 1343.
- Christiansen, W. G. See Jurist, A. E.
- Christomanos, A. A., fate of o-nitrocinnamic acid in the dog, A., 918.
- Christy, A., and Birge, R. T., titanium oxide bands, A., 935.
- Christy, A. See also Birge, R. T.
- Christy, R. K., migrations of chlorine ions, A., 662.
- Christy, R. K., and Robson, W., determination of chloride in biological fluids, A., 564.
- Chrząz, J. See Favrel, G.
- Chrzaszcz, T., and Michalski, W., soluble carbohydrates in rye flour, B., 942.
 evaluation of flour by iodine solution, B., 942.
- Chrzaszczewska, A., and Chwaliński, S., derivatives of phenacyl sulphide, A., 1375.

- Chrzaszczewska, A., and Sobierański, W., reactions between phosphorus pentachloride or trichloride and acetone cyanohydrin, A., 278.
- Chrzaszczewski, S., and Mozolowski, W., ammonia content of and ammonia formation in muscle and its relationship to function and changes of condition. V. Course of traumatic formation of lactic acid and ammonia and their dependence on inhibiting factors, A., 668.
- Chubb, H. M., English barleys of 1927, B., 423.
- Chucka, J. A. See Williams, J. W.
- Church, M. B. See May, O. E.
- Churchill, L. R., and Goodyear Tire & Rubber Co., production of carbon black from mixtures of acetylene and other hydrocarbons, (P.), B., 738.
- Churchman, J. W., and Siegel, L., cultural separation of bacteria on the basis of triphenylmethane coefficients, A., 1057.
- Chute, H. O., vulcanisation accelerator, (P.), B., 616.
- Chwaliński, S. See Chrzaszczewska, A.
- Cichochi, J., conductivity of powdered salts, A., 1082.
- Ciochina, J., separation of tungsten from silicon and tin, A., 387.
- problem of sulphur in cast iron and steel, B., 55.
- rapid determination of sulphur in pig iron and steel, B., 159.
- determination of carbon in pig iron and steel by combustion in oxygen, B., 267.
- gravimetric determination of titanium in iron alloys; separation [of titanium] from iron, B., 301.
- Cioglea, G., determination of bismuth in urine, A., 1048.
- Citron, H., micro-determination of blood-sugar, A., 438.
- Cittert, P. H. van, and Burger, H. C., true and apparent width of spectral lines, A., 1.
- Ciurea, V. V., determinations of small quantities of phosphorus by Denigès' method, A., 384.
- Ciusa, R., substances analogous to graphite. II., A., 721.
- Ciusa, R., and Cremonini, A., Doebner reaction. VI., A., 629.
- Claassen, W., production of ester mixtures, (P.), B., 202, 740.
- Claass, M., manufacture of *p*-carboxybenzenesulphondichloroamide, (P.), B., 623.
- Claassen, H., molasses formation and the nature of molasses, B., 29.
- nitrogenous organic and ammoniacal nutrients in the aëration progress of yeast manufacture, B., 65.
- mass production of yeast as a feeding stuff, B., 543.
- manufacture of baking yeast, (P.), B., 686.
- nitrogenous constituents of molasses and their bearing on its value, B., 830.
- [liming of diffusion juice], B., 870.
- substitution of ammonium salts for malt combs in the preparation of yeast, B., 908.
- Clancy, J. C., cracking of hydrocarbon oils and manufacture of cyanides, (P.), B., 181.
- cracking of [hydrocarbon] oils, (P.), B., 221.
- Clapp, A. L., and Beckwith Manufacturing Co., manufacture of hair felt, (P.), B., 636.
- Clarens, J., and Péron, (Mme.), soils. III. Absorbing power of soils for ammonia, B., 869.
- Clarenz, O. See Pfeiffer, P.
- Clark, A. H., alkaloids of *Ceanothus Americanus*. II., A., 781.
- Clark, A. M. See Lambert, B.
- Clark, C. H. D., and Topley, B., catalytic decomposition of formic acid vapour, A., 253.
- Clark, C. O., does formaldehyde protect wool against moths? B., 475.
- Clark, E. M., Loomis, N. E., Howard, F. A., and Standard Development Co., manufacture of gas from petroleum oil, (P.), B., 149.
- Clark, E. P., gossypol. I. Preparation and properties, A., 208.
- gossypol. II. Carruth's *D*-gossypol, A., 426.
- electrically heated Abderhalden drier, A., 502.
- gossypol. III. Oxidation of gossypol, A., 644.
- gossypol. IV. *apo*Gossypol, A., 1016.
- Clark, F. W. See Travers, M. W.
- Clark, G. L., King, A. J., and Hyde, J. F., crystal structures of the alkaline-earth metals, A., 1177.
- Clark, H. See Webster, D. L.
- Clark, J. d'A., pulp and paper manufacture in North America, B., 294.
- Clark, J. H., reversible crystallisation in tendons and its functional significance, A., 1152.
- Clark, L. F., oxidation of metallic solutions, (P.), B., 124.
- Clark, L. F., and Union Carbide Sales Co., treatment of copper minerals, (P.), B., 489.
- Clark, L. M., quaternary salts in the benzelenazole series, A., 78.
- reduction of selenious acid, A., 1201.
- methylene bases from 1-methylbenzthiazole and 1-methylbenzelenazole methiodides; preparation of 1-substituted benzthiazoles, A., 1264.
- Clark, N. A., plant growth-promoting substances, hydrogen-ion concentration, and the reproduction of *Lemna*, A., 208.
- Clark, N. A., and Collins, E. R., quinhydrone electrode and soil reaction, B., 167.
- Clark, R. G. See Canning, T. F.
- Clark, R. H., and Ball, R. H., cathodic halogen, A., 1197.
- Clark, R. H., and Carter, N. M., replaceability of nitro-groups from the nucleus of various aromatic compounds, A., 402.
- Clark, R. H., and Hall, R. H., replacement of halogen atoms from the nucleus of various aromatic compounds, A., 402.
- Clark, R. J., distillation of alkali metals, A., 31.
- rapid mercury still, A., 40.
- Clark, R. J., and Watson, W. H., statistical methods in quantum theory, A., 811.
- Clark, W. See Vogler, H. J.
- Clark, W. M., Cohen, B., and Sullivan, M. X., oxidation-reduction. XII. Schardinger reaction, A., 129.
- Clark, W. M. See also Phillips, M.
- Clark-Kennedy, A. E. See Aitken, R. S.
- Clarke, A., and United Hydrocarbons Co., continuous distillation and condensation of hydrocarbons, (P.), B., 632.
- Clarke, D. R. See Chamberlin, D. S.
- Clarke, E. W., and American Tar Products Co., burning of fuel, (P.), B., 632.
- Clarke, H. T., Malm, C. J., and Eastman Kodak Co., preparation of halogeno-fatty acid anhydrides, (P.), B., 117.
- esterification of hydrated cellulose with lower fatty acids; reacylation of cellulose acetate, (P.), B., 477.
- Clarke, H. T. See also Taylor, E. R.
- Clarke, I. D., and Frey, R. W., determination of sugars in tanning materials, B., 310.
- Clarke, J. B. See Bennon, F.
- Clarke, J. R., excitation of spectra by high-frequency oscillations, A., 451.
- Clarke, S. G., colorimetric determinations of small quantities of antimony, and their separation from tin, A., 983.
- Clarke, S. G. See also Evans, B. S.
- Clarke, T., and Davidson & Co., Ltd., [spreading device for drying apparatus for maize, tea, barley, wheat, etc.], (P.), B., 799.
- Clarke, Chapman & Co., Ltd., and Woodeson, W. A., pulverised fuel-fired furnaces, (P.), B., 71.
- Clarkson, R. G. See Schoepfle, C. S.
- Classen, A., production of cellulose from cellulose-containing materials, (P.), B., 154.
- Claude, G., extraction of krypton and xenon from air and from gases dissolved in water, A., 1209.
- Claude, G., and Boucherot, P., production and utilisation of cold, (P.), B., 659.
- Claude, G., and De Beaufort, J. M. E., modifying the colour of light in electric discharge tubes, (P.), B., 933.
- Claude, G., and Lazote, Inc., preparation of catalytic materials [for synthesis of ammonia], (P.), B., 524*.
- apparatus for synthesis of ammonia, (P.), B., 858*.
- Claudel, M. L. See Marie, C.
- Claus, W. D. See Jauncey, G. E. M.
- Clausen, E., recovery of carburetted gases as fuel [alcohol] from the distillation of natural or waste products, (P.), B., 778.
- Clausing, P., diffusion of thorium through tungsten, A., 356.
- Clausing, P., and Moubis, G., electrical resistance of titanium and zirconium at low temperatures, A., 576.
- Clausmann. See Guichard.
- Clauss, W. See Hein, F.
- Clavel, R., treatment [weighting] of artificial silks, (P.), B., 154, 296.
- weighting of natural silk, (P.), B., 260.
- ornamentation of fabrics made of or containing cellulose esters or ethers, (P.), B., 260.
- Claxton, E. See Miller, A. B.
- Clay, C. See Head, R.
- Clay, J., penetrating radiation, A., 569.
- Clay Reduction Co., production of aluminium compounds from raw materials, (P.), B., 857.
- Clayton, J. O. See Branch, G. E. K.

- Clayton, R. H. See Manchester Oxide Co., Ltd.
 Clayton, W. See Salt Union, Ltd.
 Clayton-Kennedy, K. E., and American Hydrocarbon Co., Inc., apparatus for extracting volatile matter [from coal], (P.), B., 44.
 Cleef, J. van. See Hertel, E.
 Clegg, W. F. See Olsen, O. S.
 Clemens, L., manufacture of figured paper, cardboard, etc., (P.), B., 601.
 Clemo, G. R., and Leitch, G. C., lupin alkaloids. I., A., 1030.
 Clemo, G. R., and Smith, J. M., nitration of substituted tertiary aromatic amines, A., 1236.
 reduction of *p*-dimethylaminobenzaldehyde and preparation of *p*-dimethylaminobenzyl alcohol, A., 1239.
 Clemo, G. R., and Spence, R., catalytic production of polynuclear compounds, A., 1370.
 Clemo, G. R., and Walton, E., properties and reactions of β -chloroethyl, β -cyanoethyl, and β -carboxyethyl toluene-*p*-sulphonates, including an extension of the Friedel-Crafts reaction, A., 513.
 Clemo, G. R., and Welch, K. N., attempts to synthesise norpinic acid, A., 1252.
 Clemo, G. R. See also Welch, K. N.
 Clerici, A. See Cambi, L.
 Clermont, J. See Benrath, A.
 Clermontel, A. J., manufacture of chamois leather, (P.), B., 133.
 dyeing leather, (P.), B., 682.
 Cleveland Trust Co., Exors. See Plantinga, P.
 Clevenger, J. F., apparatus for the determination of volatile oil, B., 465.
 analysis of ginger and its preparations, B., 729.
 Clewell, J. H., jun., and Du Pont de Nemours & Co., E. I., actinism-proof cellulose ester composition, (P.), B., 213.
 Cliffe, W. H. See British Dyestuffs Corporation, Ltd.
 Clifford, W. M., effect of fluorides and iodides on the clotting of milk by pepsin, A., 1158.
 Clifford, W. M., and Mottram, V. H., determination of carnosine, A., 1292.
 Climie, W., gas producer, (P.), B., 7*.
 Clinch, P. See Doyle, J.
 Cline, E. L., and Reid, E. F., derivatives of ethylbenzene, A., 162.
 Cloetta, M. See Branchii, E.
 Gloss, J. O., and Kahlenberg, L., use of simple metallic electrodes in the potentiometric titration of acids and bases, A., 1203.
 Gloss, K. See Lundie, G.
 Clostermeyer, H. See Müller, Adolf.
 Clough, G. W., configurational relationships of α -hydroxybutyric and lactic acids, A., 46.
 Clouwez, C., coal and ore washing plant, (P.), B., 552.
 Clusius, K., and Harteck, P., specific heats of solid substances at low temperatures, A., 826.
 Clutterbuck, P. W., determination of succinic acid in blood, A., 786.
 succinoxidase. II. Influence of phosphate and other factors on the action of succinodihydrogenase and the fumarase of liver and muscle, A., 1281.
 Coal & Oil Products Corporation. See Schwarz, A.
 Coates, C. E., and Shen, C., Clerget factor and the Deerr method of double polarisation, B., 423.
 Coates, D. A., filters and strainers for liquids, (P.), B., 216.
 Coates, J. E., Hinkel, L. E., and Angel, T. H., hydrogen cyanide. I. Mercuric methyl cyanide and the alleged isomerides of hydrogen cyanide, A., 512.
 Coates, W. M. See Riley & Sons, Ltd., J.
 Coats, H. B. See Hill, J. B., and Othmer, D. F.
 Cobb, A., cotton treating, (P.), B., 925.
 Cobb, B. G., and Cobb Electro Reduction Corporation of Canada, Ltd., volatilisation and oxidation of minerals, (P.), B., 373*.
 Cobb, J. W. See Dent, F. J., Priestley, J. J., and Sutcliffe, J. A.
 Cobb, W. B., comparison of the development of soils from acid and basic crystalline rocks, B., 537.
 Cobb Electro Reduction Corporation of Canada, Ltd. See Cobb, B. G.
 Coburn, S. E., disposal of acid iron wastes from a steel mill, B., 301.
 Cochran, P. B., and Graham, H. J., characteristics and treatment of insulating varnishes, B., 648.
 Cockcroft, J. D., condensation of molecular streams on surfaces, A., 945.
 Cockin, E., [firing of powdered-fuel] furnaces or combustion chambers, (P.), B., 839.
 Cocks, H. C., effect of superposed alternating current on the deposition of zinc-nickel alloys, A., 714.
 Cocks, L. V., and Nightingale, E., determination of butter in margarine, B., 586.
 Codd, A. M., galvanic battery, (P.), B., 760.
 Coe, D. C. See Musgrave, J. W.
 Coe, H. S., thickener, (P.), B., 74.
 thickening apparatus [for hot pulp], (P.), B., 879.
 Coe, M. R., determination of buttermilk or milk product in a mixed feed by determination of the lactose present, B., 545.
 Coehn, A., detection of protons in metals, A., 1317.
 Coehn, A., and Baumgarten, H., adsorption and diffusion by metals of electrolytically evolved hydrogen and the influence of the electrolyte, A., 13.
 Coehn, A., and Schürmann, R., free space-charges in electrolytes, A., 244.
 Coesterier, F. See Michels, A.
 Coffey, S. See British Dyestuffs Corporation, Ltd.
 Coffin, C. C., and Maass, O., preparation and physical properties of α -, β -, and *iso*-butylenes and *n*- and *iso*-butanes, A., 732.
 Coffman, A. W., and Layng, T. E., differential index of the cooking power of coal, B., 217.
 Coffman, A. W., and Parr, S. W., surface tension of metals with reference to soldering conditions, B., 95.
 Cogburn, C. C. See Poth, E. J.
 Cohen, B., Chambers, R., and Reznikoff, P., intracellular oxidation-reduction. I. Reduction potentials of *Amoeba dubia* by micro-injection of indicators, A., 793.
 Cohen, B. See also Clark, W. M., and Phillips, M.
 Cohen, E., and Joss, E. J., transition cells of the sixth class, A., 482.
 Cohen, (Miss) E. See McLennan, J. C.
 Cohen, F. L. See Adams, R.
 Cohen, H. R. See Kuttner, T.
 Cohen, J. B. See Browning, C. H.
 Cohen, J. H. See Briefer, M.
 Cohen, (Mlle.) R. See Böeseken, J.
 Cohen, W. E. See Benjamin, L. R.
 Cohn, B. E., and Gustavson, R. G., modification of the Skraup synthesis of quinoline, A., 1260.
 Cohn, E. J., Heyroth, F. F., and Menkin, (Miss) M. F., dissociation constant of acetic acid and activity coefficients of the ions in certain acetate solutions, A., 477.
 Cohn, E. J., Minot, G. R., Alles, G. A., and Salter, W. T., nature of material in liver effective in pernicious anemia. II., A., 790.
 Cohn, H., and Siebert, C., production of a [stable] colloidal silver-tannin-albumin combination soluble in water, (P.), B., 211.
 Cohn, R., examination of brandies, B., 462.
 Cohn, R. See also Fodor, A.
 Cohn, W. M., method for the determination of specific heats and heat tone from temperature-time curves, A., 146.
 oven for X-ray investigations at high temperatures and preliminary results with pentacrythritol and quartz, A., 1078.
 coefficient of expansion of zirconium oxide, A., 1084.
 tungsten and zirconium oxide furnace, A., 1348.
 factors influencing the thermal properties of minerals and products of the ceramic industry, B., 569.
 Cohoe, W. P. See Cohoe Processes Inc.
 Cohoe Processes Inc., and Cohoe, W. P., treatment of penetrable [fibrous] substances by liquids, (P.), B., 566.
 Colange, G., electrocapillary properties of mercury in contact with air, A., 245.
 Colani, A., systems uranyl nitrate, alkali nitrate, water, at 25°, A., 131, 367*.
 uranyl sulphate, A., 1104.
 Colbert, G. F., and Colbert, W. H., manufacture of mirrors, (P.), B., 334.
 Colbert, W. H. See Colbert, G. F.
 Colbrook, W., and Colbrook, W. T., refrigerators, (P.), B., 698.
 Colbrook, W. T. See Colbrook, W.
 Colby, W. F., and Barker, E. F., infra-red spectrum of ammonia, A., 1307.
 Cole, A. F. W., scattering of light by gaseous and liquid chlorine, A., 220.
 Cole, S. S., effect of grain size on the properties of silica cement, B., 265.
 Cole, W. H., proofing of iron and steel against rust, (P.), B., 488, 898.
 rust-proofing of iron, steel, and other metals, (P.), B., 608.
 Coleman, A. P., anthraxolite of Sudbury, A., 449.

- Coleman, D. A., and Fellows, H. C., determination of the oil content of seeds, etc., B., 902.
- Coleman, G. H., and Campbell, A. W., nitrogen trichloride and unsaturated hydrocarbons. III. Nitrogen chloride and diphenylketen, A., 1362.
- Coleman, G. H., and Craig, D., nitrogen trichloride and unsaturated ketones, A., 1010.
- Coleman, G. H., and Hauser, C. R., primary amines from Grignard reagents and monochloroamine, A., 622.
- Coleman, G. H., Mullins, G. M., and Pickering, E., nitrogen trichloride and unsaturated hydrocarbons. II, A., 1362.
- Coleman, S. P., Hughes, W. S., and Standard Oil Development Co., reclaiming [naphthenic] distillation residues, (P.), B., 702.
- Coles, G., and Graham, J. I., absorption of oxygen by preheated coal, B., 113.
- Coles, H. L. See Donaldson, J. G.
- Coles, H. W., digestion of pectin and methylglucose by various organisms, A., 552.
- Coles, W. J. See Allen & Co., Ltd., E.
- Coley, H. E., manufacture of zinc, (P.), B., 96.
- Coley, H. E., extraction of zinc and other metals from ores, B., 159.
- Coley, H. E. See also Hornsey, J. W.
- Colin, H., and Augem, A., levulosans of *Iris*, A., 803.
- Colin, H., mannan of iris seed, A., 1062.
- Colin, H., and Chaudun, (Mlle.) A., mutarotation and the reaction of the solution, A., 25.
- Colin, H., rate of hydrolysis and hydrogen-ion concentration, A., 249.
- Colin, H., hydrolysis of sucrose by acids: hydrogen-ion concentration and hydrolysing power, A., 1100.
- Colin, H., and Franquet, R., new maltose-producing plant, *Schizopepon fargesii*, Garnepain, A., 559.
- Colin, H., formation of starch in the haricot, A., 1061.
- Colin, P. G., and Tartar, H. V., nitrogen fixation by the high-tension arc, B., 12.
- Colin-Russ, A., carried upper leathers; wear of kips, splits, etc., and influence of various dressings, B., 62.
- Collander, R., permeability of gelatin membranes, A., 121, 1319.
- Collatz, H. See Helferich, B.
- Colles, W. M., and Gibson, C. S., resolution of externally compensated *p*-nitrobenzoylalanine, A., 287.
- Collet, (Mlle.) P., and Birch, F., magnetic moments of the cupric ion, A., 341.
- Collet, M. E., paramagnetism of iron in potassium ferricyanide, A., 823.
- Collett, M. E., specificity of intracellular dehydrogenases. I. Dehydrogenase of cunner muscle, A., 1156.
- Collie, A. J. See Nastukov, A. M.
- Collin, G., and Hilditch, T. P., component glycerides of coconut and palm-kernel fats, B., 791.
- Collings, C. H., [determination of] urinary calcium, A., 1394.
- Collins, E. R. See Clark, N. A.
- Collins, H., structure of an atom of nitrogen. V. and VII., A., 4, 456.
- Collins, I. D., minerals. I-IV., A., 613, 865, 1111, 1211.
- Collins, I. D., quantitative hydrolysis of starch by buffered taka-diastase; [determination of starch], A., 621.
- Collins, M. G. See Kiam, E.
- Collins, R., treatment of sulphate- and soda-pulp, (P.), B., 11.
- Collins, R. K., process and apparatus for the refining or cracking hydrocarbons, (P.), B., 80.
- Collins, R. K., and Collins Process Inc., refining and cracking of hydrocarbons, (P.), B., 150*.
- Collins, W. D., Farr, H. V., Rosin, J., Spencer, G. C., and Wichers, E., recommended specifications for analytical reagent chemicals, B., 88, 771.
- Collins, W. D., and Howard, C. S., chemical characters of waters of Florida, A., 864.
- Collins, W. D., dissolved and suspended mineral matter in Colorado River, A., 987.
- Collins Process Inc. See Collins, R. K.
- Collinson, G. A. See Channon, H. J.
- Collison, L. W. See Richards, A. N.
- Colloidal Equipment Corporation. See Cuniff, B.
- Collway Laboratories, Inc. See O'Brien, R. J., jun.
- Colombier, and Chaize, detection of adulterants in cacao butter in chocolate, B., 385.
- Colombo y Manni, M., chambers for the manufacture of sulphuric acid, (P.), B., 122.
- Colony, R. J., and Sinclair, J. H., lavas of the volcano Sumaco, Eastern Ecuador, S. America, A., 1350.
- Coltman, B. W., flaking of soap, (P.), B., 130.
- Colton, J. H., and Pacific Portland Cement Co., Consol., hardening and ageing calcined gypsum products, (P.), B., 606.
- Columbian Carbon Co. See Lewis, G. C.
- Colwell, N. H., apparatus for treating and combining hydrocarbon liquids and gases and other liquids and gases, (P.), B., 438.
- Comănescu, V. N. See Angelescu, E.
- Comas, M., origin of the pigment of *Chironomus* larvæ, A., 437.
- Comay, S. See Faragher, W. F.
- Combes, R., Sachs' method applied to the determination of the migration of [nitrogenous] substances [in plants], A., 1407.
- Combes, R., and Echevin, R., speed of autumnal migration of nitrogenous substances from the leaves to the stems of woody plants, A., 93.
- Combes, T. J. C., action of insulin on dextrose *in vitro*, A., 205.
- Combes, T. J. C., action *in vitro* of insulin and of normal and diabetic dog's muscle on dextrose, A., 1404.
- Combs, W. B., fat losses in buttermilk, B., 688.
- Combustion Utilities Corporation. See Soule, R. P.
- Commercial Pigments Corporation. See Blumenfeld, J.
- Commercial Solvents Corporation, and Edmonds, W. J., production of acetone and butyl alcohol by fermentation, (P.), B., 345.
- Commercial Solvents Corporation, and Legg, D. A., butyl [alcohol]-acetone fermentation, (P.), B., 32.
- Commercial Solvents Corporation, Woodruff, J. C., and Bloomfield, G., catalysts for synthetic methanol [methyl alcohol] production, (P.), B., 885.
- Commercial Solvents Corporation, Woodruff, J. C., Bloomfield, G., and Bannister, W. J., catalytic production of methyl alcohol, (P.), B., 844.
- Commercial Solvents Corporation. See also Arsem, W. C., Bannister, W. J., Bloomfield, G., Bogin, C., Gabriel, C. L., Legg, D. A., and Pike, E. F.
- Compagnie de Béthune, preparation of petroleum hydrocarbons from methane, (P.), B., 116.
- Compagnie de Béthune, exothermic synthesis under pressure, (P.), B., 697.
- Compagnie de Béthune, synthesis of alcohols, (P.), B., 739.
- Compagnie de Béthune, manufacture of alcohols and liquid hydrocarbons, (P.), B., 885.
- Compagnie de Béthune. See also Duchange, M.
- Compagnie pour la Fabrication des Compteurs et Matériel d'Usines à Gaz, automatically-cleaned tar separators, (P.), B., 45.
- Compagnie Française des Établissements Gaillard, treatment of wood prior to impregnation, (P.), B., 396.
- Compagnie Française pour l'Exploit. des Procédés Thomson-Houston, electrodes for electric batteries, (P.), B., 339.
- Compagnie des Freins Westinghouse, separation of liquids [e.g., oil from water], (P.), B., 112.
- Compagnie Générale des Industries Textiles. See Duhamel, E. C.
- Compagnie Industrielle de Mécanique Horlogère, nickel-plating bath, (P.), B., 97.
- Compagnie Industrielle des Moteurs à Explosion (C.I.M.E.), and Perrier, D., centrifugal separators, (P.), B., 430.
- Compagnie Lorraine de Charbons, Lampes, et Appareillages Electriques, carbon electrode, (P.), B., 199.
- Compagnie Lorraine de Charbons, treatment of pulverulent [rubber] fillers and pigments having a carbon base, particularly lamp blacks, carbon blacks, etc., (P.), B., 420.
- Compagnie Lorraine de Charbons, manufacture of carbons for use as anodes of electric cells, (P.), B., 529.
- Compagnie Métallurgique Franco-Belge de Montagne (Société Anonyme). See Nathansohn, Metall- & Farbwerke A.-G., A.
- Compagnie des Métaux Overpelt-Lommel, reduction of zinc ores or other zinc-bearing material, (P.), B., 20.
- Compagnie des Métaux Overpelt-Lommel, roasting and/or sintering of fine [zinc] ore or other fine material, (P.), B., 609.
- Compagnie des Mines de Bruay, retort for low-temperature carbonisation, (P.), B., 5.
- Compagnie des Mines de Bruay, treatment of fuel, (P.), B., 5.
- Compagnie des Mines de Bruay, distillation of solid fuels at low temperatures, (P.), B., 251.
- Compagnie Nationale de Matières Colorantes & Manuf. Prod. Chim. du Nord Réunies, Établ. Kuhlmann, manufacture of phosphorus, phosphoric acid, and hydrogen, (P.), B., 523.
- Compagnie Nationale de Matières Colorantes & Manuf. Prod. Chim. du Nord Réunies, manufacture of intermediate products and vat dyestuffs derived from diacylperylene, (P.), B., 667*.
- Compagnie de Produits Chimiques & Electrométallurgiques Alais, Froges, & Camargue, purification of naphthalene, (P.), B., 846.
- Compagnie de Produits Chimiques & Electrométallurgiques Alais, manufacture of electrical conductors in light aluminium alloys, (P.), B., 932.
- Compagnie des Surchauffeurs, heat exchangers, (P.), B., 878.

- Complex Ores Recoveries Co. See Coolbaugh, *M. F.*, and Read, *J. B.*
- Comptoir des Textiles Artificiels Société Anonyme, and Charassieu, *H. L. J.*, manufacture of artificial textile threads, fibres, filaments, etc., (P.), B., 637.
- Compton, *A. H.*, interaction between radiation and electrons, A., 216.
spectrum and state of polarisation of fluorescent X-rays, A., 1174.
- Compton, *K. T.*, Boyce, *J. C.*, and Russell, *H. N.*, extreme ultra-violet spectrum of argon excited by controlled electron impacts, A., 1067.
- Compton, *K. T.* See also Russell, *H. M.*, and Van Voorhis, *C. C.*
- Comrie, *A. A. D.*, conservation of the food value of barley during the process of brewing, B., 461.
- Comrie, *A. A. D.*, and Ward, *T. J.*, the Gutzeit test [for arsenic in brewing materials], B., 871.
- Comstock & Wescott, Inc., Whitney, *L. F.*, and Weaver, *E. A.*, refrigerating systems, (P.), B., 659.
- Comyn, *B. D.*, and Rottenburg, *L.*, filters or separators [for liquids], (P.), B., 879.
apparatus for separating liquids, (P.), B., 879.
- Conant, *J. B.*, Alles, *G. A.*, and Tongberg, *C. O.*, electrometric titration of hæmin and hæmatin, A., 1268.
- Conant, *J. B.*, and Aston, *J. G.*, oxidation reactions of aldehydes, A., 1357.
- Conant, *J. B.*, and Bigelow, *N. M.*, tetraphenyldi-*tert.*-butylethane, A., 994.
- Conant, *J. B.*, and Blatt, *A. H.*, action of sodium-potassium alloy on certain hydrocarbons, A., 404.
action of sodium-potassium alloy on petroleum, B., 250.
- Conant, *J. B.*, and Brammann, *G. M.*, acidic and basic catalysis of acetylation reactions, A., 1101.
- Conant, *J. B.*, and Hall, *N. F.*, superacid solutions. II. Chemical investigation of the hydrogen-ion activity of acetic acid solutions, A., 129.
- Conant, *J. B.*, and Scott, *M. D.*, equilibria involving oxidation of hæmoglobin to methæmoglobin, A., 315.
- Conant, *J. B.*, Scott, *M. D.*, and Douglass, *W. F.*, determination of methæmoglobin, A., 315.
- Conant, *J. B.* See also Hall, *N. F.*
- Conant, *L. B.*, vulcanisation of rubber to leather, (P.), B., 494.
- Concordia Elektrizitäts Akt.-Ges., and Gosmann, *W.*, accumulator contact plates, (P.), B., 760.
- Condon, *E. U.*, Zeeman effect of the symmetrical top according to wave mechanics, A., 101.
- Condon, *E. U.* See also Gurney, *R. W.*
- Condorelli, *L.*, apparatus for the analysis of blood-gases, A., 537.
- Condorelli, *P.*, and Ghindemi, *A.*, gum extracted from cotyledons of *Anagyris foetida*, A., 1163.
- Conduit, *G. W.*, device for softening or purifying water, (P.), B., 914.
- Cone, *C. N.* See Laucks, Inc., *I. F.*
- Conitzer, *L.* See Lichtwitz, *L.*
- Conley, *J. E.* See Marden, *J. W.*
- Conlin, *J. J.*, and General Electric Co., purification of metals, (P.), B., 412.
- Conn, *H. J.*, and Holmes, *W. C.*, factors influencing the staining properties of fluorescein derivatives, A., 1057.
- Conner, *R. M.*, and Vandaveer, *F. E.*, testing laboratory of the American Gas Association, B., 355.
- Connolly, *G. C.* See Miller, *E. B.*, and Silica Gel Corporation.
- Connor, *C. L.*, lipochromes. III. Determination of carotin in blood and tissues, A., 786.
- Conover, *C.*, and Monsanto Chemical Works, production of benzoic acid from phthalic anhydride, (P.), B., 117.
- Conrad, *C. M.* See Appleman, *C. O.*
- Conservation Corporation of America. See Rice, *G. E.*
- Consolidated Ashcroft Hancock Co. See Winslow, *S. E.*
- Consolidated Coal Products Co. See McIntire, *C. V.*
- Consortium für Elektrochemische Industrie G.m.b.H., manufacture of products resembling rubber, (P.), B., 132.
manufacture of butyric aldehyde, (P.), B., 151.
manufacture of acetic anhydride, (P.), B., 474, 515.
process of sticking, cementing, impregnating, or filling, and manufacture of agents therefor, (P.), B., 793.
- Consortium für Elektrochemische Industrie G.m.b.H., Meingast, *R.*, and Mugdan, *M.*, preparation of acetic anhydride, (P.), B., 596.
- Consortium für Elektrochemische Industrie. See also Baum, *E.*, and Herrmann, *W. O.*
- Consortium Electro-Chimique de France, and Tardan, *J. J.*, production of lead minium [red lead] having a high peroxide content, (P.), B., 579.
- Constable, *F. H.*, application of the interference method to the determination of the surface area of metallic nickel films, A., 27.
spectrophotometric observations on the growth of oxide films on iron, nickel, and copper, A., 106.
auto-poisoning phenomenon shown by catalytically active copper at moderate temperatures, A., 139.
Reichinstein's displacement principle, A., 252.
theory of centres of activity in heterogeneous catalysis, A., 718.
method of generalising the law of mass action for heterogeneous surface reactions, A., 718.
new interference method of measuring the surface area of film catalysts. I. Theory. II. Nickel. Preparation of the film, apparatus for activation, and study of the surface area, A., 832.
reflecting power and colour sequences shown by metals on activation, A., 832.
definition of "area" in the case of contact catalysts, A., 1101.
- Consten, *A.* See Paffrath, *H.*
- Construction Français d'Appareils de Laiterie, and Minet, *A.*, centrifugal machine, (P.), B., 40.
- Contact Filtration Co. See Prutzman, *P. W.*
- Contardi, *A.*, and Dansi, *A.*, action of copper nitrite on thiocarbamide, A., 159.
- Contardi, *A.*, and Latzer, *P.*, [action of] animal poisons [on lecithins and lysocithins], A., 1052.
- Continental-Caoutchouc & Gutta-Percha Co., preventing the loss of colour of dyed, unvulcanised rubber, (P.), B., 204.
- Continentale Akt.-Ges. für Chemie, fuel for internal-combustion engines, (P.), B., 81.
- Continentale Prodorit Akt.-Ges. See Prodorite, Ltd.
- Contraflo Engineering Co., Ltd., and Gunn, *J.*, tubular heat exchangers, (P.), B., 551.
- Conway, *A. W.*, undulating theory of two-electron orbits, A., 933.
- Conybeare, *E. T.*, Densham, *H. B. A. R.*, Maizels, *M.*, and Pembrey, *M. S.*, respiratory exchange, temperature, and blood-sugar of anaesthetised animals, A., 794.
- Coode-Adams, *W. R. C.*, refractive index of quartz, A., 220.
- Cook, *J. W.*, isomeric derivatives of 1:5-dichloro-9-benzyl-anthracene, A., 53.
a cyclic semipinacolin, A., 293.
transannular anionotropic migrations, A., 1365.
- Cook, *J. W.* See also Barnett, *E. de B.*
- Cook, *J. Williamson*, purification of helium, A., 1341.
- Cook, *R. P.*, and Woolf, *B.*, deamination and synthesis of *l*-aspartic acid in presence of bacteria, A., 551.
- Cook, *S. F.*, action of potassium cyanide and potassium ferricyanide on certain respiratory pigments, A., 537.
- Cook, *V.* See Stewart, *T. D.*
- Cooke, *J. V.*, and Keith, *H. R.*, urea-splitting bacterium in the human intestinal tract, A., 204.
- Cooke, *R. D.*, [cause of opacity of] white enamel, B., 483.
- Coolbaugh, *M. F.*, Read, *J. B.*, and Complex Ores Recoveries Co., desulphidising and desulphurising of sulphur minerals, (P.), B., 235.
- Coolbaugh, *M. F.* See also Read, *J. B.*
- Coolhaas, *C.*, thermophilic fermentation processes, A., 447.
- Coolidge, *A. S.*, vapour density and other properties of formic acid, A., 1084.
- Coolidge, *C.*, Eastlack, *H. E.*, and Du Pont de Nemours & Co., *E. I.*, manufacture of coating compositions containing rubber and drying oils, (P.), B., 376.
- Coolidge, *C.* See also Stine, *C. M. A.*
- Coolidge, *T.* See Redfield, *A. C.*
- Coombs, *E.* See Grimble, *F.*
- Coombs, *F. A.*, McGlynn, *W.*, and Welch, *M. B.*, wattle barks. II., B., 166.
- Coombs, *H. I.*, xanthine oxidase. IX. Specificity of the system. II., A., 89.
- Coombs, *J. A.* See Activated Sludge, Ltd.
- Cooper, *C.*, treatment of gases arising from the distillation of coal, etc., (P.), B., 594.
- Cooper, *C.*, Henshaw, *D. M.*, and Holmes & Co., Ltd., *W. C.*, dehydration of ammonia vapours, (P.), B., 124*.
drying of fuel gases, (P.), B., 778, 883.

- Cooper, C., Holmes, F. B., and Holmes & Co., Ltd., W. C., treatment of coal gas, etc., and production of ammonium sulphate, (P.), B., 130.
- Cooper, C., and Holmes & Co., Ltd., W. C., drying of fuel gases, (P.), B., 325.
- Cooper, C. See also Henshaw, D. M., and Holmes & Co., Ltd., W. C.
- Cooper, C. M., and Fasce, E. V., micro-fractionating column for analytical purposes, A., 610.
- Cooper, D. B., [bearings for sugar-cane] crushing machines, (P.), B., 802.
- Cooper, D. LeB., heat capacities of acetaldehyde and paraldehyde and the heat of transformation of acetaldehyde into paraldehyde, A., 10.
- Cooper, E. A., and Haines, R. B., chemical action of quinones on proteins and amino-acids, A., 552.
- Cooper, E. A., and Mason, J., disinfectant action. II. Relations of phenols and amines to proteins, A., 702.
- Cooper, H. P., and Wilson, J. K., correlation between electromotive series and oxidation potentials and plant and animal nutrition, A., 801.
- Cooper, K. E. See Baker, J. W.
- Cooper, L. H. N. See Bradfield, A. E.
- Cooper, L. V. See Zimmerman, E. C.
- Cooper, R. A., new platinum mineral in Rustenburg norites, A., 1111.
- Cooper & Co., Inc., C. See Kleinhans, H. L.
- Cooper Hewitt Electric Co. See Buttolph, L. J.
- Coops, J., jun. See Verkade, P. E.
- Coordt, W. See Falck, R.
- Cope, E. C. See British Celanese, Ltd.
- Copeland, L. C. See Bichowsky, F. R.
- Copeman, P. R. v. d. R., growth of grapes. II. Relationship between sugar and acid in the juice. III. Effect of environment on growth constants, A., 334.
effects due to spraying of fruits, B., 497.
growth of grapes. IV. Initial changes in acidity. V. Relationship between sugar and soluble solids in the juice. VI. Acid : sugar ratio, B., 723.
- Copenhaver, J. E., and Reid, E. E., *m*-diethylbenzene and some of its derivatives, A., 162.
- Coper, K. See Zocher, H.
- Copisarow, M., organic rhythmic structures, A., 587.
- Coplan, Archibald Harold. See Baillet, A. E.
- Coplan, Archibald Hyman, cupola, (P.), B., 412.
- Coplan, Archibald Hyman, and Economy Metal Products Corporation, cupola, (P.), B., 610*.
- Coplan, Archibald Hyman. See also Baillet, A. E.
- Copland, C., and International Patents Development Co., manufacture of dextrose, (P.), B., 103.
- Coppée & Cie, E., coke oven, (P.), B., 883.
- Copper Plate, Sheet & Tube Co. See Watkins, W. E.
- Copping, A. M., iodine values of some sterols by Dam's method, A., 1239.
- Coppock, P. D., Subramaniam, V., and Walker, T. K., mechanism of degradation of fatty acids by mould fungi. II., A., 1064.
- Coppock, P. D. See also Walker, T. K.
- Coppola, M., qualitative analysis of mixtures containing complex cyanogen compounds, A., 512.
laboratory thermostat, A., 609.
- Coquelet, O., furfuraldehyde-sulphuric acid reaction, A., 784.
colorimetric micro-determination of bile salts, A., 1043.
- Coquoin, R., determination of the respiratory elimination of acetone in man, A., 909.
- Corbellini, A., and Aymar, G., industrial preparation of perylene, B., 596.
- Corbet, G. See Boutaric, A.
- Corbitt, H. B. See Dubin, H. E.
- Corby, R. L., Bührig, W. H. F., and Fleischmann Co., manufacture of yeast, (P.), B., 621*.
- Corby, R. L., Scales, F. M., Bührig, W. H. F., and Fleischmann Co., treatment of molasses, (P.), B., 541.
- Cordebard, H., volumetric determination of carbamide by oxidation of xanthylcarbamide, A., 661.
- Cordebard, H., and Miehle, V., volumetric determination of organic substances completely oxidisable by sulphuric acid-chromic acid mixtures in presence of silver nitrate, A., 313.
- Cordebard, H. See also Schwander, (Mlle.) J.
- Cordebas, R., crystalline graphite and its capillary properties, A., 1088.
- Cordero, N. See Abeloos, M.
- Cordier, P., β -phenylethylmaleic acid and the isomeric β -phenylethylfumaric acid, A., 519.
- Cordonnier, and Guinchant, inductive power in the gaseous state, A., 113.
- Cori, C. F., and Cori, G. T., fate of sugar in the animal body. VIII. Influence of insulin on utilisation of dextrose, laevulose, and dihydroxyacetone, A., 553.
action of adrenaline. I. Carbohydrate metabolism of fasting rats. II. Carbohydrate metabolism of rats in the post-absorptive state. III. Utilisation of absorbed dextrose, A., 1286.
- Cori, G. T. See Cori, C. F.
- Cork, J. M., crystal structure of some of the alums, A., 6.
- Cork, J. M. See also Mack, J. E.
- Corley, R. C., metabolism of lactose. III. Galactose tolerance in the rabbit, A., 323.
pentose metabolism. II. Disposal of *l*-arabinose and of *d*-xylose in the rabbit, A., 323.
- Corn Products Co., Ltd., and McCoy, R. O., manufacture of starch, (P.), B., 833.
- Corn Products Refining Co., manufacture of dextrose, (P.), B., 652, 833.
- Cornelius, C. E., electric furnace for melting or producing glass, water-glass cement, or other substances, (P.), B., 163*.
- Cornelius, H. G. E. See Flodin, H. G.
- Cornillot, A. See Barré, R.
- Corning, C. S., and Corning, W. S., treatment of hydrocarbons, (P.), B., 81.
- Corning, W. S. See Corning, C. S.
- Corning Glass Works. See Taylor, W. C.
- Cornish, R. E., and Eastman, E. D., specific heat of hydrogen gas at low temperatures from the velocity of sound; a precision method of measuring the frequency of an oscillating circuit, A., 468.
- Cornthwaite, W. R. See Evans, W. L.
- Cornubert, R., 2 : 6-dimethylcyclohexanones, A., 416.
orientation phenomena with 2-methylcyclohexanone, A., 416.
- Cornubert, R., and Le Biban, H., preparation of cyclohexanol ethers; formation of tetrabenzylcyclohexanones, A., 284.
permanganate oxidation in alkaline media, A., 411.
benzylation and phenylation of 2-methylcyclohexanone, A., 641.
- Cornwell, C. W., esterification of ethyl alcohol in citric acid solution, B., 464.
- Corradini, A., and Società Metallurgica G. Corradini, manufacture of alloys, (P.), B., 336.
- Corran, R. F., decomposition of triethylsulphonium bromide in mixed solvents, A., 25.
- Corran, R. F., and Lewis, W. C. M., influence of normal and cancerous blood-serum on pancreatic lipase action and the effect of ionic and colloidal lead, A., 543.
- Corsalli, F. W., smelting furnace, (P.), B., 59.
smelting of iron in foundry shaft furnaces, (P.), B., 197.
melting of metals, (P.), B., 372.
refining or purifying metals and alloys, (P.), B., 899.
- Corson, B. B., Dodge, R. A., Harris, S. A., and Hazen, R. K., [preparation of] ethyl benzoylformate, A., 638.
- Corson, B. B., Hazen, R. K., and Thomas, J. S., mechanism underlying the reaction between aldehydes or ketones and tautomeric substances of the keto-enol type. II. Condensation of mesoxalic ester with cyanoacetic and malonic esters, A., 508.
- Corson, B. B., and Stoughton, R. W., $\alpha\beta$ -unsaturated dinitriles, A., 1363.
- Corson, H. P., and Grasselli Chemical Co., manufacture of insecticides, (P.), B., 137.
- Corson, M. G., [copper-silicon] alloys and method of working and heat-treating the same, (P.), B., 527.
constitution of the iron-silicon alloys, particularly in connexion with the properties of corrosion-resisting alloys of this composition, B., 572.
heat-treating copper-nickel-beryllium alloys, (P.), B., 863.
- Corson, M. G., and Electro Metallurgical Co., corrosion-resistant [copper-manganese] alloys, (P.), B., 198.
production and treatment of a copper alloy, (P.), B., 305*.
alloy, (P.), B., 412, 528.
- Cort, S. J., and Bethlehem Steel Co., regenerative open-hearth furnace, (P.), B., 820.
- Cort, S. J., Burns, T., Dougherty, R. S. A., and Lehr, C. E., regenerative open-hearth furnaces, (P.), B., 788.

- Cort, S. J., Burns, T., Dougherty, R. S. A., Lehr, C. E., and Bethlehem Steel Co., regenerative open-hearth furnace, (P.), B., 608.
- Corten, M. H., and Estermann, L., electrometric determination of calcium by the use of secondary electrodes, A., 1205.
- Cory, J. M., Bunke, F. H., and Solar Refining Co., disposal of spent clay in [oil]-refining plants, (P.), B., 359.
method of disposing of acid sludge and spent clay in oil-refining plants, (P.), B., 843.
- Cory, M. M. See Perl, J.
- Cosbie, A. J. C. See Smith, W. T.
- Cosgrove. See Thompson, M. de K.
- Cosler, A. S., and Turney Processes, Inc., preparation of a powdered milk for ice-cream mix, (P.), B., 653.
- Cosmic Arts, Inc. See Lambert, A.
- Cosmovici, N. L., p_H of the Black Sea compared with that of the salt lake Tékir-Ghiol, A., 390.
- Costa, A. E. y., hyperallantoinuria in experimental polyuria and diabetes insipidus in man, A., 441.
- Costa, D., panification with soya flour. I, B., 66.
- Costaguta, D., motor fuel, (P.), B., 633*.
- Coste, J. H., pollution of tidal and non-tidal waters, B., 800.
- Costeanu, G. L., hexabromostannates of rubidium, caesium, and beryllium, A., 603*.
formation of crystalline gold, A., 720.
- Coster, D., natural width of the lines of X-ray spectra, A., 451.
- Coster, D., and Hevesy, G. von, separation of hafnium and zirconium, (P.), B., 367*.
- Coster, D., and Prins, J. A., X-ray examination of liquids by the rotating-crystal method, A., 1078.
- Cotte, C., [apparatus for the production of] phosphoric acid, (P.), B., 122.
- Cotter, T. See Reed, A. C.
- Cotterman, R. E., apparatus for the separation of volatile products from solid carbonaceous material, (P.), B., 115.
- Cotton, R. T., and Roark, R. C., fumigation of stored-product insects with certain alkyl and alkylene formates, B., 421.
ethylene oxide as fumigant, B., 732.
- Cotton, R. T. See also Roark, R. C.
- Cotton, Ltd., E. See Ratcliffe, J. W.
- Coty Société Anonyme Suresnes. See Pollacchi, C.
- Couch, J. F., toxic constituent of richweed or white snake-root (*Eupatorium urticifolium*), A., 94.
- Coughlin, M. F., road binder, (P.), B., 299.
- Coulhon, A. J., ceramic kilns, (P.), B., 264.
- Coulliette, J. H., diffusion of metastable atoms in mercury vapour, A., 1300.
- Coulson, E. A. See Chattaway, F. D.
- Coulter, C. B., oxidation-reduction equilibria in biological systems. I. Reduction potentials of sterile culture bouillon, A., 1286.
- Coulthard, J., [filter-pad for] filtration of liquids [milk], (P.), B., 545.
- Counson, L., changes in refractive index and density in binary mixtures, A., 698.
- Counson, L., and Molle, A., photo-electric emission of water and of aqueous solutions, A., 1171.
- Coupin, H., nitrogen nutrition of *Penicillium glaucum*, A., 95.
- Cournot, J., treatment of articles of ferrous alloys in solutions of complex phosphates as a protection against corrosion, B., 18.
non-magnetic alloys of nickel, B., 126.
effect of small additions of tin and cadmium on the properties of lead, B., 336.
cementation of steels by special manganese alloys, B., 673.
- Cournot, J., and Silva, M. S., viscosity [of metals] at high temperatures, B., 644.
- Cournot, J. See also Roux, A.
- Courtaulds, Ltd., Hegan, H. J., and Hazeley, E., manufacture of threads, filaments, etc. from viscose, (P.), B., 228.
manufacture of artificial filaments, threads, etc., (P.), B., 810.
- Courtaulds, Ltd., Hegan, H. J., and Taylor, J. H., treatment of cellulose fibres, (P.), B., 259.
- Courtaulds, Ltd., and Stokes, W. H., manufacture of artificial threads, filaments, bands, etc., (P.), B., 565.
- Courtaulds, Ltd., and Taylor, J. H., manufacture of filaments, threads, bands, etc. from viscose, (P.), B., 782.
- Courtaulds, Ltd., Topham, C. F., Hazeley, E., and Morton, E. A., manufacture of artificial threads, filaments, bands, etc., (P.), B., 565.
- Courtaulds, Ltd., Wood, F. T., and Turney, E. G., manufacture of artificial silk and apparatus therefor, (P.), B., 154.
- Courtaulds, Ltd. See also Diamond, C., Glover, W. H., Topham, C. F., and Whittaker, C. M.
- Courtier, J. See Risler, J.
- Courtney, A. M., differences in the behaviour of raw, pasteurised, boiled, evaporated, and dried milk at the hydrogen-ion concentration of the stomach, A., 440.
- Courtois. See Baud, A.
- Courtois, A., variations in the amino-acid content of some lepidoptera while in chrysalis, A., 917.
- Courtois, A. See also Duval, M.
- Courtois, G. F., spraying of liquids [or powders], (P.), B., 73.
- Courtot, C., condensation of chloroindane with phenols, A., 1370.
- Courtot, C., Fayet, and Parant, indene halogenohydrins, A., 280.
- Courtot, C., Nicolas, L., and Liang, T. H., [derivatives of] diphenylene sulphide, A., 896.
- Cousen, A., Howes, H. W., and Winks, F., control and distribution of temperature in lehrs, B., 671.
- Cousen, A., and Turner, W. E. S., boric oxide-silica glasses, B., 927.
- Cousins, W. R. See Hammick, D. L.
- Coutts, J. R. H. See Keen, B. A.
- Coville, F. V., effect of aluminium sulphate on rhododendrons and other acid-soil plants, B., 278.
- Cowan, E. W. See Bradfield, R.
- Cowan, W. A., minute shrinkage cavities in cast alloys of heterogeneous structure, B., 268.
composition of old Roman lead, B., 302.
- Coward, H. F., and Greenwald, H. P., propagation of flame in mixtures of natural gas and air, A., 960.
- Coward, H. F., and Guest, P. G., ignition of natural gas-air mixtures by heated metal bars, A., 24.
- Coward, H. F., and Jones, G. W., limits of inflammability of gases and vapours, B., 392.
- Coward, K. H., minimum amount of vitamin-D required for a positive antirachitic effect in the "line" test, A., 1288.
- Coward, K. H., and Key, K. M., assay of vitamin-A, A., 1058.
- Cowper, A. D., and Williams, J. F., suggested standard method of slaking in testing building limes, B., 194.
- Cowper-Coles, S. O., production of rubber [by electrodeposition], (P.), B., 615.
- Cox, A. E. See Loveridge, C.
- Cox, C. B. See Prideaux, E. B. R.
- Cox, D. C., and General Electric Co., anti-sludging means for oil, (P.), B., 397.
- Cox, D. C. See also British Thomson-Houston Co., Ltd.
- Cox, E., and Tobacco By-Products & Chemical Corporation, testing of nicotine solutions, (P.), B., 731.
- Cox, E. G., crystalline structure of benzene, A., 1081.
- Cox, F. M., centrifugal separators [for the solid constituents of pulp], (P.), B., 507.
- Cox, G. E., and American Cyanamid Co., manufacture of calcium cyanamide, (P.), B., 603.
- Cox, G. J., preparation of *d*-arginine monohydrochloride, A., 993.
- Cox, K., McDermott, P. J., and Refiners, Ltd., purification of benzol, petrol, etc., (P.), B., 182*.
- Cox, L. B., and Park, C. R., carbon blacks and their use in rubber. III. Ageing effects, B., 868.
- Cox, R. T., Mellwraith, C. G., and Kurrelmeyer, B., apparent evidence of polarisation in a beam of β -rays, A., 1169.
- Coxon, G. H. See Anglo-Persian Oil Co., Ltd.
- Coyle, V. J. R. See Ryan, H.
- Cozens, F. G., and Metallisation, Ltd., coating of materials by metal spraying, (P.), B., 128.
- Crabtree, H. G., carbohydrate metabolism of certain pathological overgrowths, A., 1274.
- Craig, D. See Coleman, G. H.
- Craig, O. See Riley Spoker Corporation.
- Craig, T. J. I. See Spence & Sons, Ltd., P.
- Crajinovic. See Krajcinovic.
- Cramer, R., and Wilson, J. A., scientific sewage disposal at Milwaukee, B., 174.
- Cramer, T. M., and Pacific Coast Borax Co., production of commercial borax from $\text{Na}_2\text{O} \cdot 2\text{B}_2\text{O}_3 \cdot 4\text{H}_2\text{O}$, (P.), B., 710.
- Crane, F. N. See Woodroffe, D.
- Cranner, B. H., cell phosphatides of plants. II, A., 1059.
- Cranston, J. A., and Duncan, J., conductivities and p_H values of mixtures of acids in solution, A., 369.
- Cravath, A. M. See Loeb, L. B.

- Craven, E. C. See Ormandy, W. R.
 Craven, J. A., and Yorkshire Dyeware & Chem. Co., Ltd., treatment of wood, (P.), B., 564.
 Craven, J. T. See Petrie & McNaught, Ltd.
 Crawford, H. M. See Smith, L. I.
 Crawford, M. F. See McLennan, J. C.
 Crawshaw, J. E. See Perrott, G. St. J.
 Crawshaw, R., apparatus for extraction of oil from shale, (P.), B., 470.
 Creamery Package Manufacturing Co., pasteurising apparatus for liquids [e.g., milk], B., 912.
 Crearga, C. See Spacu, G.
 Credo, J., and Louisville Drying Machinery Co., Inc., screening of wet material, (P.), B., 467.
 Creighton, H. J., and Atlas Powder Co., economical reduction of composite sugar-bearing solutions, (P.), B., 207.
 Cremer, W., reduction of hæmin by cysteine, A., 315.
 compound of carbon monoxide with "ferrocysteine" and its decomposition by light, A., 623.
 Crémieu, A. See Javillier, M.
 Cremonini, A., Doebner reaction [preparation of a benzene-azoquinoline], A., 650.
 copper compounds of some aminoazo- and hydroxyazo-derivatives, A., 996.
 fruit of *Schinus molle*, B., 873.
 Cremonini, A. See also Ciusa, R.
 Crenshaw, J. R. See Schaeffer, J. A.
 Crepez, E., cyano-sulpho-compounds of molybdenum, A., 973.
 Crespi, M., density of anhydrous chromic chloride and its adsorption of water vapour from the atmosphere, A., 941.
 Crespi, M. See also Moles, E.
 Cretcher, L. H. See Nelson, W. L.
 Creveld, S. van, determination of lævulose in blood, A., 1392.
 Cribb, C. H., method of applying the Gutzeit test for arsenic, B., 89.
 Crippa, G. B. See Charrier, G.
 Cristol, P., Puech, A., and Trivas, coefficient of dysdeamination; relation between certain non-protein nitrogenous substances of the blood as evaluation of ureogenetic function, A., 321.
 Croakman, E. G. See Winkelmann, H. A.
 Crocker, B. E., manufacture of synthetic carbonaceous coke briquettes for metallurgical use, (P.), B., 700.
 Croese, D., treatment [smelting] of ores for the production of metal, (P.), B., 270.
 manufacture of steel and alloys from iron sand, (P.), B., 305*.
 Croft, C. M., and Buxton, R. H., transportation of coke from vertical chamber ovens or from vertical retorts, (P.), B., 664.
 Croll, A. G., and Atlas Portland Cement Co., furnace [cement kiln] lining, (P.), B., 54.
 Croll, P. R., theories of pigment settling, B., 648.
 Croll, P. R. See also Jenkins, J. D.
 Crommelin, C. A., and Watts, H. G., preliminary isotherms of ethylene, A., 696.
 vapour tensions of liquid ethylene, A., 697.
 Crommelin, C. A. See Mathias, E.
 Cronheim, G. See Günther, P.
 Cronshaw, C. J. T., Naunton, W. J. S., and British Dyestuffs Corporation, Ltd., vulcanisation of rubber, (P.), B., 869*.
 Cronshaw, C. J. T. See also British Dyestuffs Corporation, Ltd.
 Crooke, A., and Thomson, I., new plant of the Appleby Iron Co., Ltd., B., 406.
 Crooker, H. L. See Sterling, F. W.
 Crooks, J. T. L., production and refining of Indian gur or jaggery, B., 540.
 Crosland, E. W. See Vicars, Ltd., T. & T.
 Cross, C. F., Viscose Development Co., Ltd., and Winsor & Newton, Ltd., preparation of painting grounds for artists, decorators, and craftsmen, (P.), B., 258.
 Cross, H. C., and Hill, E. E., density of hot-rolled and heat-treated carbon steels, B., 300.
 Cross, H. C. See also French, H. J.
 Cross, R., desulphurising and purifying petroleum oil, (P.), B., 150.
 conversion of heavier hydrocarbons into lighter hydrocarbons, (P.), B., 779.
 Cross, R., and Gasoline Products Co., refluxing tower [for mineral oils], (P.), B., 513.
 Cross, R. J. See Thomas, M. D.
 Cross, W. See Russell, T. F.
 Cross, W. M., manufacture of producer gas, (P.), B., 219.
 Cross, W. M., conversion of petroleum hydrocarbons, (P.), B., 396.
 Cross, W. M., and Gasoline Products Co., treatment of hydrocarbon oils, (P.), B., 438.
 Crossley, J. S., [forming hollow, cylindrical elements for] primary cells and secondary cells, (P.), B., 760.
 Crouch, H. See Sheppard, S. E.
 Croucher, H. H., dye adsorption by hydrous alumina in soils, B., 380.
 Crow, T. B., cohesion at soldered surfaces, B., 160.
 Crowe, P. L., crushing and separating apparatus; crushing apparatus, (P.), B., 248.
 ball-mills [for pulverising coal and feeding it to boiler furnaces], (P.), B., 801.
 Crowell, J. H., and National Aniline & Chemical Co., Inc., manufacture of halogen derivatives of aromatic compounds, (P.), B., 119.
 Crowell, R. B., Breckenridge, G. F., and American Solvents & Chemical Corporation of California, production of alkali metal xanthates, (P.), B., 192*.
 Crowell, W. R., and Yost, D. M., oxidation states of ruthenium in its halide compounds, A., 382.
 Crowley, C. H., and Watermotors, Ltd., mixing and agitating [means for freezing] machines, (P.), B., 144.
 Crowther, F. See Gregory, F. G.
 Crozier, R. H., distillation of oils from oil shale or coal or similar material, (P.), B., 221.
 Crozier, W. D., voltage-intensity relations in the mercury spectrum, A., 682.
 Cruess, W. V. See Kaloyereas, S.
 Crump, J. W. See Potter, H. V.
 Crundall, S. F. W. See Spence & Sons, Ltd., P.
 Cruto, A. See Serono, C.
 Csanyi, H., [depolariser for dry] battery cell, (P.), B., 646.
 Csanyi, H., Klopman, L., and Huselton, W. W., [dry] battery cell, (P.), B., 612*.
 Csapo, J., influence of proteins on solubility of calcium phosphate, A., 16.
 Csépai, K., and Ernst, Z., insulin sensitiveness of man, A., 915.
 Csonka, F. A. See Jones, D. B.
 Csűrös, Z. See Zemplén, G.
 Cuban-American Sugar Co. See Spencer, G. L.
 Cuccia, A., dehydrogenation processes with choroid membranes of albino and pigmented animals, A., 1154.
 Cuccurullo, M., [criticism of] a colorimetric reaction to determine the purity of olive oil, B., 718.
 Cuculescu, I., action of zinc on mixtures of polyhalogenated hydrocarbons with ketones and aldehydes, A., 739.
 Cudahy Packing Co. See Drake, E. T.
 Cude, H. E., and Naugatuck Chemical Co., treatment of rubber, and product thereof, (P.), B., 868.
 Cuenea, B. S., distribution of reducing substances between blood-plasma and striped muscle; effect of insulin, A., 205.
 Cuénoud, J., filters [for wines and liqueurs], (P.), B., 425.
 Cuker, K. See Komers, K.
 Culhane, P. J., 2-bromo-3-nitrobenzoic acid, A., 412.
 Culhane, P. J., and Woodward, (Miss) G. E., [preparation of] 3-nitrophthalic acid, A., 413.
 Culhane, P. J. See also Whitmore, F. C.
 Cullen, G. E., and Earle, I. P., determination of p_{H} of blood. I. Accuracy of quinhydrone electrode for determining p_{H} of blood-plasma or serum. II. Comparison of colorimetric method with hydrogen and quinhydrone electrodes, A., 438.
 Cullinane, N. See Ryan, H.
 Culpepper, C. W., and Caldwell, J. S., relation of atmospheric humidity to deterioration of evaporated apples in storage, B., 241.
 Cumming, W. M., and Brown, D. G., hydroferro- and hydroferri-cyanides of the alkaloids. II., A., 533.
 Cundall, K. N., drying sulphur recovered from manufactured gas, B., 669.
 Cunliffe, P. W., and Farrow, F. D., loss of strength [tendering] of cotton exposed to light, B., 563.
 Cunliffe, P. W., and Midgley, E., effect of structure and of bleaching on the strength of cotton yarns, B., 563.
 Cunniff, B., and Colloidal Equipment Corporation, disintegrator [emulsifier], (P.), B., 430.
 Cunningham, A. B., mechanically operated gas analysers, (P.), B., 42.

- Cunningham, E. L., and Macbeth, H. F., charging of fluids and other substances with ultra-violet rays, (P.), B., 272.
- Cunningham, O. D. See Hess, R. W.
- Cuno, C. H., and Cuno Engineering Corporation, filter for fluids, (P.), B., 248.
- Cuno Engineering Corporation. See Cuno, C. H.
- Cuny, L., colour reactions of the bile acids, A., 1389.
- Cuny, L. See also Chiray, M.
- Cupples, H. L. See Bartlett, E. P.
- Cupr, V., thermostat, A., 1348.
- Curie, (Mlle.) I., and Joliot, F., number of ions produced by the α -particles of radium-C' in air, A., 810.
[apparatus for the determination of] the number of ions produced by the α -particles of radium-C' in air, A., 810.
- Curme, G. O., jun., and Carbide & Carbon Chemicals Corporation, thermal decomposition [cracking] of hydrocarbons, (P.), B., 116.
- Currado, C., determination of uric acid [in body fluids], A., 448.
- Curran, F. J. See Steam Production Corporation.
- Currey, G. S., cause of blueing in red roses, A., 1161.
- Curs, A. See I. G. Farbenind. A.-G.
- Curtin, L. P., preservation of wood, (P.), B., 607.
preserving and protecting vegetable substances [wood], (P.), B., 672, 750*.
manufacture of alkali hydroxides, (P.), B., 746.
- Curtin, L. P., and Curtin-Howe Corporation, preservation of wood and solutions thereof, (P.), B., 299.
- Curtin, L. P., Kline, B. L., and Thordarson, W., wood preservation.
V. Weathering tests on treated wood, B., 93.
- Curtin, L. P., and Thordarson, W., wood preservation. VI., B., 194.
- Curtin-Howe Corporation. See Curtin, L. P.
- Curtis, A. R., centrifugal extractor, (P.), B., 248.
- Curtis, F. R. See Relehrádek, J.
- Curtis, T. S., process of forming ceramic articles; manufacture of ceramic products; apparatus for making ceramic articles, (P.), B., 605.
photomicrography in colour, B., 693.
- Curtis, T. S., and Pacific-Southwest Trust & Savings Bank, heat-treatment of alumina and other [refractory] materials, (P.), B., 334.
- Curtis, T. S. See also Vitrefrac Co.
- Curtis, W. E., structure of band spectrum of helium. IV., A., 449.
new regularities in the band spectrum of helium, A., 806.
- Curtis, W. E., and Jeyons, W., Zeeman effect in the band spectrum of helium, A., 1066.
- Curtiss, L. F., half-period of radium-E, A., 4.
projection electroscope for standardising radium preparations, A., 862.
action of the Geiger counter, A., 985.
radon pump, A., 1169.
- Curtis's & Harvey, Ltd., and Grimwood, A. J., fuse compositions and fuses for shells, (P.), B., 245.
- Cusin, M., Chevalot, P. A. A., and Société Lyonnaise de Soie Artificielle, preparation of modified cellulose for use in the manufacture of cellulose acetate, (P.), B., 521*.
- Cussen, C. S., composition [copper-nickel-zinc alloy], (P.), B., 644.
- Cutcliffe, E. F. See Menzies, R. C.
- Cuthbertson, A. C., Matheson, G. L., and Maas, O., f. p. and density of pure hydrogen peroxide, A., 577.
- Cutler, L. F. P. See Wheeler, A. S.
- Cutler-Hammer Manufacturing Co. See Delaney, M. E.
- Cuvier, G. See Nodon, A.
- Cuypers, J., drum for drying materials, (P.), B., 2.
- Cuypers, P., evaluation of watch and clock oils, B., 79.
- Czapek, E. See Wolf & Co.
- Czernotzky, A., detection of pentathionate in presence of sulphurous acid, A., 1204.
- Czernotzky, A. See also Kurtenacker, A.
- Czerny, M., infra-red spectra of hydrogen halides according to Schrödinger's theory, A., 344.
- Czike, A. See Jendrassik, L.
- Czocharalski, J., and Henkel, E., changes in the mechanical properties [of metals] caused by fatigue, B., 303.
- Czocharalski, J., and Schmidt, E., corrosion research, B., 160.
- Czubalski, F., differences in chemical constitution, pH, and digestive power of pancreatic secretion, according to the nature and intensity of the exciting factor, A., 1047.
- D.
- D., W. H., determination of sulphate in chromic acid, A., 383.
- D. Co., Inc. See Davidson, A. C.
- Dabisch, H., viscosity of nitrocellulose, B., 186.
- Daehlaue, K. See I. G. Farbenind. A.-G.
- Dadieu, A., optical examination of perylene and its derivatives.
I. Visible absorption spectrum of some simple derivatives, A., 1071.
current density-potential measurements, A., 1098.
- Dällenbach, W., cathodes for mercury vapour apparatus [rectifiers], (P.), B., 577.
- Daeyes, K., natural rusting tests with cupriforous steel, B., 786.
- Dahl, N., preparation of cooling brine, (P.), B., 710.
- Dahl, O., age-hardening phenomena in beryllium-copper alloys, B., 160.
- Dahlberg, A. C., Carpenter, D. C., and Hening, J. C., grading of commercial gelatin and its use in the manufacture of ice cream. II., B., 500.
- Dahlberg, A. C., and United States, manufacture of soft cheese, (P.), B., 653.
- Dahlberg, A. C. See also Carpenter, D. C.
- Dahlberg, H. W., recovery of sucrose from mixtures containing reducing sugars, (P.), B., 908.
cyclic process of using barium compounds in the manufacture of sugar, (P.), B., 940.
- Dahm, T. M., organic media as spectral filters in the ultra-violet, A., 218.
- Dalby, M. E. See Thompson, W. O.
- Daimler, K., Marshall, F., Balle, G., and Grasselli Dyestuff Corporation, manufacture of a water-soluble [resinous] condensation product, (P.), B., 762*.
- Daimler, K., Müller, C. E., Gärtner, H., and Grasselli Dyestuff Corporation, production of resists on animal fibres, (P.), B., 445*.
- Daimler, K. See also I. G. Farbenind. A.-G.
- Dains, F. B. See Moyer, H. V., and Suter, C. M.
- Dakin, H. D., and West, R., general reaction of amino-acids. I and II., A., 874, 1120.
aromatic derivatives of substituted acetamidoacetones, A., 1141.
- Daldy, F. J. See Chattaway, F. D.
- Dale, A. J., premature failure of combustion chamber material, B., 570.
control of silica brick making, based on load-test indications. I. Résumé and theoretical. II. Control of grog fractions. III. Interdependence of matrix nature and type of industrial service. IV. Control of matrix fractions, B., 642.
- Dale, A. J., and Green, A. T., thermal insulation of retort settings, B., 590.
- Dale, A. J., and Scott, A., effects of temperature on the mechanical properties of silica products, B., 571.
- Dales, B. See Geer, W. C.
- Dalietos, J., condensation product of salicylic acid and isovaleric anhydride, A., 1005.
- Dalinski, J. See Turski, J. S.
- Dall, J. R. See Nill, E. A.
- Dalla Vedova, M. See Karrer, P.
- Dallwitz-Wegner, R. von, contact electricity, thermo-electricity, and cohesion pressure, A., 483.
galvanic gas cells, (P.), B., 933.
- Dallyn, F. A. See De Laporte, A. I.
- Dalsgaard, A. T., determination of potassium as perchlorate, A., 1205.
- Dalton, W. G., terpeneless lemon oil, B., 173.
- Dam, H., synthesis and absorption of cholesterol, A., 546.
determination of cholesterol, A., 564.
- Daman, A. C., continuous filter, (P.), B., 2.
- Damard Lacquer Co., Ltd. See Potter, H. V.
- Damaskina, W. See Magidson, O.
- Damboviceanu, A. See Manicatis, M.
- D'Ambrosio, A., action of diazonium salts on α -terpinolhydroxyl-aminocoxime, A., 68.
action of cold concentrated sulphuric acid on pernitrosoketocineole, A., 68.
- Damerell, V. R., micro-method for the determination of surface-tension and density, A., 147.
- Damiens, A. A. L. J. See Lebeau, P. M. A.
- Damm, P., coking coals and the mechanism of the coking process, B., 802.

- Damm, P. See also Oberschlesische Kokswerke & Chem. Fabr. Akt.-Ges.
- Damodaran, M., fermentation of toddy and the micro-organisms producing it, B., 584.
- Damon, S. C. See Hartwell, B. L.
- Damonte, A., ergot, A., 336.
- Dana, L. I., Burdick, J. N., and Jenkins, A. C., physical properties of vinyl chloride, A., 10.
- Danăilă, N., and Stoenescu, (Miss) V., chemical composition of Rumanian crude [petroleum] oils according to their origin and geological occurrence, B., 841.
- Dancan, (Mlle.) G. See Canals, E.
- Danckwardt, P., recovery of aluminium chloride from sludge, (P.), B., 397.
- Danckworth, P. W., and Jürgens, E., toxicology of lead and its compounds. IV. Electrolytic detection of lead. V. Nephelometric determination of lead, A., 981.
- toxicology of lead and its compounds. VI., A., 1399.
- Dand, T., [portable, continuous-burning] lime kiln, (P.), B., 93.
- Dane, (Frl.) F. See Matossi, F., and Schaefer, C.
- Danef, R., conversion of Ronchèse's method for the determination of urinary uric acid into a micro-method, A., 196.
- double salts of alkaloids with zinc iodide, A., 907.
- stable colour standards for the determination of nitrites in water, B., 246.
- Danforth, G. L., jun., and Open Hearth Combustion Co., open-hearth furnace, (P.), B., 412.
- Dangeard, P., liberation of free iodine by sea-weed, A., 562.
- liberation of the free iodine of *Laminaria flexicaulis*, A., 1061.
- Daniel, L., calcium oxalate deposition in grafted plants, A., 802.
- Daniel, L. See also Bougault, J.
- Daniel, W. See Strecker, W.
- Daniels, E. A., Snell, H. S., and Western Electric Co., Inc., hardening resinous exudations, (P.), B., 615.
- Daniels, F., glass manometer, A., 610.
- physico-chemical aspects of the Leclanché dry cell, B., 453.
- Daniels, F. See also Fösbinder, R. J., Kon, S. K., Lenher, S., and Valenzuela, P.
- Daniels, F. E. See Sperr, F. W., jun.
- Daniels, R. G., manufacture of zinc oxide, B., 783.
- Danielsen, E., effect of onion and garlic on the growth of bacteria in sausages, B., 689.
- Danier, C., and Syndicat Franco-Neerlandais, renewal of india-rubber and chiefly that contained in the covers of worn-out pneumatic tyres, (P.), B., 165*.
- Danilitschenko, P. T., and Ravitsch, M., catalytic refining of bromine, B., 482.
- Danilitschenko, P. T. See also Boshovski, V. N.
- Danilov, S., isomerisation of hydroxy-aldehydes. I. Transformation of diphenylglycollaldehyde into benzoin, A., 64, 641*.
- oxidation of alcohols to aldehydes and condensation of aldehydes and alcohols to mixed esters. I., A., 991.
- Danilovich, A. J. See Petrov, G. S.
- Dann, A. T., Howard, A., and Davies, W., alkaline hydrolysis of ω -bromo- and ω -chloro-nitrostyrenes, A., 513.
- Dann, C. B., and Thoresby, F., furnaces, (P.), B., 551.
- Dann, W. J., and Quastel, J. H., effects of phloridzin and other substances on fermentations by yeast, A., 329.
- Danneel, H., evaluation of silicon carbide and synthetic corundum, B., 642.
- Dannenbaum, W., and Pacific Nitrogen Corporation, production of argon, (P.), B., 298.
- Dannenberg, F. See Traube, I.
- D'Ans, oxidation and weathering of linseed oil paints, B., 935.
- D'Ans, J., and Sommer, F., preparation of titanic oxide from titanic ores, (P.), B., 124*.
- Dansi, A. See Contardi, A.
- Dantuma, R. S., exact determination of the coefficient of internal friction of molten salts, A., 1208.
- Darbord, R., absolute measurement at high frequency of the dielectric constants of liquids, A., 6.
- Darby, G. M. See Bull, A. W.
- Darco Sales Corporation. See Lewis, G. C.
- Darling, E. R., and Hydraulic Press Manufacturing Co., manufacture of high-grade apple juice, (P.), B., 315.
- Darmois, E., influence of neutral salts on the rotatory power of tartaric acid and the tartrates, A., 1320.
- Darmstaedter, E., history of ethyl ether, A., 1353.
- Da Rocha, J. B., oil from the abdomen of the queen ant, A., 664.
- Darrin, M., introfiers, or impregnation accelerators, B., 703.
- Darrin, M., and Burt Co., Ltd., F. N., manufacture of a composition of matter [insulating material], (P.), B., 129.
- Dartmoor China Clay Co., Ltd. See Parker, T. W.
- Darwin, C. G., wave equations of the electron, A., 570.
- magnetic moment of the electron, A., 1299.
- diffraction of the magnetic electron, A., 1300.
- Darwin, K., Zeeman effect at intermediate strengths of magnetic field, A., 451.
- Darzens, G. A., electric furnace for effecting catalytic gas reactions, (P.), B., 933.
- Das, B. See Krishna, S.
- Das, R. K. See Chowdhury, J. K.
- Das-Gupta, J. See Ray, P.
- Da Silva, M. A., affinity of oxygen for electrons, A., 341.
- electrons and positive ions in pure argon, A., 809.
- Dasney, G. A. See Littleton, J. T., jun.
- Datta, R. L., and Varma, P. S., replacement of sulphonic groups by nitro-groups in aromatic amino-compounds, A., 167.
- Daubek, G. See Mislin, E.
- Daubney, C. G., and Maclean, (Mrs.) I. S., carbohydrate and fat metabolism of yeast. IV. Nature of the phospholipins, A., 203.
- Daudt, H. W., production of lead tetraethyl, (P.), B., 748, 816.
- Daudt, H. W., Parmelee, A. E., Calcot, W. S., and Du Pont de Nemours & Co., E. I., manufacture of lead tetraethyl, (P.), B., 124.
- Daur, R. See Kuster, W.
- Daure, P., secondary radiation observed in the molecular diffusion of light by fluids (Raman effect), A., 813.
- Daure, P. See also Cabannes, J.
- Davène, M., apparatus for carbonisation of wood, (P.), B., 6.
- Davenport, H. A., Koch and McMeekin's method for the determination of nitrogen, A., 1346.
- Davenport, H. A., and Davenport, H. K., lactic acid content of resting mammalian muscle, A., 545.
- Davenport, H. A., Davenport, H. K., and Ranson, S. W., muscular contraction. I. Lactic acid content, A., 1398.
- Davenport, H. A. See also Sacks, J.
- Davenport, H. K. See Davenport, H. A.
- Davenport, R. W., and Chicago Pneumatic Tool Co., process and apparatus for heat transfer, (P.), B., 249*.
- Davenport, R. W. See also Chicago Pneumatic Tool Co.
- Davey, W. P., theory of the mechanism of crystal growth, A., 1313.
- Davey, W. P. See also British Thomson-Houston Co., Ltd.
- David, A. D., and Universal Oil Products Co., treatment of petroleum oil, (P.), B., 149.
- David, L., determination of morphine, A., 1145.
- detection of colocynthin in colocynth extract, B., 426.
- David, M., grinding and mixing apparatus, (P.), B., 696.
- David, W. T., and Thorp, B. H., pressures developed in gaseous explosions, A., 372.
- Davidson, A. See British Dyestuffs Corporation, Ltd.
- Davidson, A. C., and D. Co., Inc., treatment of alloy steel, (P.), B., 789.
- Davidson, A. W., prevalent error in the derivation of the f. p. and b. p. laws for dilute solutions, A., 947.
- solutions of salts in pure acetic acid. I., A., 947.
- Davidson, C., relative intensity of the principal doublet (H, K) and of the diffuse doublet (X) in the spectrum of the calcium chromosphere, A., 105.
- Davidson, D., oxidation-reduction potentials of the pentacyanoferrates, A., 1330.
- Davidson, D., and Welo, L. A., nature of Prussian-blue, A., 1105.
- Davidson, D. See also Baudisch, O.
- Davidson, G. See Laucks, Inc., I. F.
- Davidson, G. M. See Davis, G. E.
- Davidson, J. G., and Reid, E. W., thinners for nitrocellulose lacquers, B., 275.
- Davidson, J. H. See Cauwood, J. D.
- Davidson, J. M. See Adams, R.
- Davidson, P. B., and Sherrard, E. C., tannin content of Alaskan Mountain hemlock bark (*Tsuga mertensiana*), B., 763.
- Davidson, P. M. See Richardson, O. W.
- Davidson, R. L. See Aborn, R. H.
- Davidson, T. M. See Patent Retorts, Ltd.
- Davidson & Co., Ltd. See Clarke, T.
- Davies, A., apparatus for electromagnetic separation of ores, (P.), B., 759.

- Davies, (Miss) A. C., and Moss, (Miss) R. N., cause of loss of thermionic activity of thoriated tungsten filaments under certain voltage conditions, A., 681.
- Davies, A. H. See Thomas, J.
- Davies, A. R., Hughes, W. K., and Morgan, A.-G., manufacture of bricks, blocks, slabs, artificial stone, fuel briquettes, ovoids, etc., (P.), B., 335.
- Davies, D. T., and Dodds, E. C., properties of pure bilirubin and its behaviour towards the van den Bergh reagent, A., 544.
- Davies, H., and Davies, W., bromination of *m*-methoxycinnamic acid, A., 519.
- Davies, I. A., formation and decomposition of sodium salicylate, A., 1329.
- Davies, L. A., and Adams, R., structures of convolvulinic and jaspalinic acids; synthesis of κ -hydroxypentadecic and κ -hydroxyhexadecic acids, A., 990.
- di(cyclohexylalkyl)acetic acids. XIV., A., 1132.
- Davies, R. C. See Dunlop Rubber Co., Ltd.
- Davies, W., Pregl's universal filling applied to macro-combustions, A., 190.
- Davies, W., and Poole, H. G., the two *o*-cyanocinnamic acids, A., 61.
- action of phosphorus pentachloride on homophthalic acid, A., 885.
- Davies, W., and Wood, E. S., comparative effects of the nitro-, carboxyl, and sulphonie acid groups on the hydrolysis of aryl halides, A., 746.
- Davies, W. See also Dann, A. T., and Davies, H.
- Davies, W. L., acid values of fats and oils; method of determining the barium values of fats and oils, B., 200.
- tests for incipient rancidity of fats, B., 791.
- proteins of different types of peat soils, B., 905.
- Davies, W. L., and Mattick, A. T. R., cause of "fishiness" in dairy products, B., 283.
- Davies, W. S. See Peale, R.
- Davion, P. See Sicot, C.
- Davis, A. B., determination of milk solids in mixed feeds, B., 766.
- Davis, B., and Mitchell, D. P., fine structure of the scattered radiation from graphite, A., 1168.
- Davis, B., and Purks, H., additional lines in the *K*-series of molybdenum and the natural breadth of spectral lines, A., 451.
- effect of chemical combination on the structure of the *K* absorption limit, A., 1173.
- Davis, C. E., and Davidson, G. M., hydrogen-ion concentration measurements. I. Methods of measurements, A., 977.
- Davis, C. E., and Salisbury, H. M., effect of previous history on the viscosity of gelatin solutions, B., 722.
- Davis, C. H. See Bassett, W. H.
- Davis, C. P., Frost, G. B., and American Cyanamid Co., manufacture of alkali cyanides, (P.), B., 568.
- Davis, C. W., swelling of bentonite and its control, B., 91.
- Davis, C. W., and Du Pont de Nemours & Co., E. I., production of aromatic amines, (P.), B., 474.
- Davis, D. C., hardness testing device, (P.), B., 467.
- Davis, H. L. See Bancroft, W. D., and Raiford, L. C.
- Davis, H. S., relative rates of absorption of gaseous butylenes into sulphuric acid, A., 1351.
- relative rates of bromination of the olefines, A., 1351.
- relative rates of reaction of olefines in combustion with oxygen and in oxidation with aqueous potassium permanganate, B., 881.
- Davis, J. A. See McCaa, G. S.
- Davis, J. D., and Galloway, A. E., low-temperature carbonisation of lignites and sub-bituminous coals, B., 629.
- Davis, J. D., and Reynolds, D. A., effect of physical characteristics of coke on reactivity, B., 556.
- Davis, J. D. See also Smith, D. F.
- Davis, J. G., and Slater, W. K., anaerobic metabolism of the earth-worm (*Lumbricus terrestris*), A., 544.
- aerobic and anaerobic metabolism of the common cockroach (*Periplaneta orientalis*). III., A., 544.
- Davis, J. W. See Tolman, R. C.
- Davis, K., separating or cleaning intermixed divided materials, (P.), B., 628.
- Davis, M. B., influence of ammonium sulphate as a direct source of nitrogen for apple trees, B., 135.
- Davis, M. N., secondary electrons from cobalt, A., 819.
- Davis, N. R., and Metropolitan-Vickers Electrical Co., Ltd., high-frequency electric induction [vacuum] furnace, (P.), B., 98.
- Davis, R. O. E., use of electrolytic bridge for determining soluble salts, A., 36.
- Davis, T. L., [preparation of] nitroguanidine, A., 401.
- [preparation of] guanidine nitrate, A., 401.
- colloidising agent for nitrocellulose, (P.), B., 188.
- Davis, T. L., and Elderfield, R. C., catalytic preparation of methylamine from methyl alcohol and ammonia, A., 992.
- Davis, T. L., and Hill, J. W., reaction between potassium carbonate and sulphur in alcoholic solution, A., 141.
- Davis, T. L., and Logan, A. V., chloroform-soluble metal pyridine cyanates, A., 1259.
- Davis, T. W. See Taylor, H. A.
- Davison, C. J., and Germer, L. H., thermionic work function of tungsten, A., 3.
- diffraction of electrons by a crystal of nickel, A., 102.
- reflexion of electrons by a crystal of nickel, A., 683.
- reflexion and refraction of electrons by a crystal of nickel, A., 1173.
- Dawson, E. R., and Platt, B. S., phosphate ion and hydrolysis by pancreatic lipase, A., 550.
- Dawson, E. S., jun. See British Thomson-Houston Co., Ltd.
- Dawson, G. A., apparatus for preparing [active] aluminium chloride, A., 266.
- Dawson, H. M., hydrogen-ion concentration of aqueous iodine solutions, A., 365.
- catalytic effects of acids and bases and the influence of inert salts, A., 1336.
- Dawson, H. M., and Key, A., acid and salt effects in catalysed reactions. XII. The water catenary ($H^+ - H_2O - OH^-$) in the iodination of acetone, A., 486.
- acid and salt effects in catalysed reactions. XIII. Inert salt effects in the catalytic action of acids. XIV. Influence of inert salts on the catalytic catenary for acetic acid-acetate mixtures, A., 717.
- acid and salt effects in catalysed reactions. XVI. Catalytic effects in the iodination of mesityl oxide, A., 1101.
- Dawson, H. M., and Lowson, W., acid and salt effects in catalysed reactions. XV. Catalytic activity of hydrochloric acid in the hydrolysis of ethyl acetate, A., 1101.
- Dawson, L. H., piezo-electricity of crystal quartz, A., 1314.
- Dawson, T. P. See Lawson, W. E.
- Dawson, T. R. See Porritt, B. D.
- Dawson, W. E., simple method of determining the orientation and structure of crystals with X-rays, A., 574.
- Dawson, W. H. See British Alizarine Co., Ltd.
- Day, A. R., and Taggart, W. T., unification of bromination methods of analysis as applied to phenols and aromatic amines, A., 660.
- Day, F. E., small-scale brewing in the laboratory, B., 941.
- Day, J. N. E. See Brady, O. L.
- Day, M. R. See Rubber Latex Res. Corporation.
- Day, P. L. See Sherman, H. C.
- De, A. K., attempted synthesis of β -*m*-aminophenylethylamine, A., 629.
- De, A. K., and Ray, J. N., constitution of vasicine. I. Synthesis of 4-hydroxy-2-propyl- (and isopropyl)quinazoline, A., 428.
- De, P. K., and Sircar, A. C., reactivity of *ortho*-diketonic groups placed between two nitrogen atoms, A., 428.
- De, S. C., action of hydrazides. II. Synthesis of bistriazoles from thiocarbo- and carbo-hydrazides, A., 1142.
- De, S. C., and Dutt, N. C., pyrazolones; action of thiosemicarbazide and semicarbazide on ketonic esters. II., A., 1260.
- De, S. C., and Ray-Chaudhury, S. K., oxidation. I. Action of ferric chloride and hydrogen peroxide on thiosemicarbazones; synthesis of thiodiazoles and triazoles, A., 1143.
- Dean, A. L., Wrenshall, R., and Fujimoto, G., synthesis of iodo-dihydrochaulmoogric acid and its ethyl ester, A., 1355.
- Dean, F. C., and Swift, P. O., preparation for stripping paint, varnish, etc., (P.), B., 614.
- Dean, N. C., treatment of carbonaceous absorbent material for use in respirators, etc., (P.), B., 701.
- Dean, R. S., Hudson, W. E., and Western Electric Co., Inc., age-hardening process [for lead], (P.), B., 758.
- treatment of lead-[antimony] alloys, (P.), B., 758.
- storage-battery grid, (P.), B., 760.
- Dean, R. S., and Western Electric Co., Inc., treatment of lead [-antimony] alloys, (P.), B., 758.
- Dean, R. S., and Wilson, R. V., action of fluxes in soft soldering and a new class of fluxes for soft soldering, B., 95.

- Dearborn, R. J., and Texas Co., treatment of [hydrocarbon] oils, (P.), B., 291.
- Dearden, W. H., specific heat of iron below 400°, B., 785.
- De Balsac, F. H., and Deforge, A., tanning barks in Madagascar, B., 617.
- De Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
- De Baufre, W. L. See Tolman, R. C.
- De Beaufort, J. M. E. See Claude, G.
- De Beer, E. J. See Andrews, J. C.
- De Bercegol, R. C. M., manufacture of polychromatic screens for colour photography, (P.), B., 625.
- De Beus, G. J. P. H. A. See Veen, G. van der.
- De Blois, W. H., contact process for sulphuric acid, B., 480.
- Debo, A. See International Bergin-Comp. voor Olie- en Kolen-chemie.
- De Boer, J. H., refractive indices of alkali fluoborates, A., 257.
- De Boer, J. H., and General Electric Co., incandescence electric lamp, (P.), B., 59.
- De Boer, J. H., and Naamlooze Vennootschap Philips' Gloeilampfabrieken, separation of hafnium and zirconium, (P.), B., 367*.
- De Boer, J. H. See also Arkel, A. E. von.
- Debout, A. See Pinet, A. F. P.
- Debowska-Kurnicka, H. See Vogel, H.
- De Briey, J., separation of impurities from molasses and sugar juices by electrolysis, (P.), B., 64.
- De Broglie, M., absorption of X- and γ -rays and the secondary radiations which accompany them, A., 938.
- fine structure of the Compton effect, A., 1297.
- De Brouckère, (Mlle.) L., adsorption of ferric chloride by crystalline barium sulphate, A., 357.
- potentiometric analysis of electrolytes, A., 482.
- source of error in conductivity measurements, A., 957.
- De Brouckère, (Mlle.) L. See also Pinkus, A.
- De Bruin, T. L., spark spectrum of neon. II., A., 450.
- spectrum of ionised argon (A II), A., 450.
- structure of the fluorine spectrum (F I), A., 565.
- spark spectrum of argon. I., A., 565.
- structure of some spectra with regard to recent theoretical considerations, A., 678.
- spectrum of ionised neon, A., 678.
- spectra of ionised neon (Ne II) and ionised argon (A II). II., A., 1293.
- Debueh, C. P. See Gröppel, K.
- Debye, P., and Falkenhagen, H., dispersion of conductivity and dielectric constant for strong electrolytes, A., 596, 957.
- De Camelis, F., elimination of morphine, A., 444.
- De Campos, H. V., laboratory apparatus for extraction of oils with solvents, B., 718.
- De Capeller, R., synthetic musks, A., 280.
- synthetic musks. II. Elimination of side-chains during the nitration of aromatic compounds, A., 631.
- De Carli, F., and Agostini, P., double carbonate of copper and sodium, A., 1334.
- De Caro, L., production of lactic acid and phosphoric acid in "rigor after thawing," A., 545.
- energy of growth. XII. Comparative energy yield of different sugars in the development of moulds, A., 804.
- De Cew, J. A., sizing of paper, (P.), B., 304.
- De Chambrier, P., [removal from cotton yarns and fabrics of] mineral oil stains, B., 741.
- Dechesne, J., apparatus for purifying and de-aërating molten iron, (P.), B., 372.
- Décombe, L., charged spheres, the photo-electric effect, and the fluorescence spectra of X-rays, A., 693.
- De Costa, M. S. See Maximoff, J.
- Decourt, J. See Loeper, M.
- Dédék, J., trimethylamine in the vapours from carbonatation [of beet juices], B., 30.
- De Diesbach, H., and Janzen, T., dibenzoylxylenes and dinaphth-anthradiquinones. IV., A., 892.
- De Diesbach, H., and Weid, E. von der, complex salts of o-dinitriles with copper and pyridine, A., 62.
- De Dios Fernandez, J., pharmacological determination of atropine, A., 326.
- detection and determination of atropine in the smoke of *Stramonium* cigarettes, A., 326.
- Dedrick, C. H., and Philadelphia Quartz Co., manufacture of straw pulp and paper, (P.), B., 782.
- Deeds, C. L., vapour absorption of a fired earthenware body, B., 859.
- De Eds, F. See Hanzlik, P. J.
- Deeks, H. C. J., [colour] photography, (P.), B., 549.
- Deerns, W. M., titration of phosphoric and boric acids present in the same solution by the citrate method, A., 979.
- Deerns, W. M. See also Liebert, F.
- Deeter, G. C., metal alloys, (P.), B., 161.
- Defay, R., adsorption from concentrated solutions and the adsorption of liquids, A., 471.
- De Fazi, R., syntheses with radiant energy. II. Photosynthesis of $\alpha\beta$ -triphenyl-lactic acid, A., 1341.
- preparation of phosphorus thiochloride, A., 1342.
- De Florez, L., and Texas Co., treatment of hydrocarbons, (P.), B., 633.
- De Fonzo, V. See Oddo, G.
- De Forest, L. See De Forest Phonoflms, Ltd.
- De Forest Phonoflms, Ltd., and De Forest, L., photo-electric cells, (P.), B., 901.
- Deforge, A. See De Balsac, F. H.
- Défossez, (Mlle.) See Morvillez, F.
- Degenhardt, W. R. See African Selection Trust, Ltd.
- De Geyter, G., drying and removing oil from gases and vapours, (P.), B., 44.
- De Göncz, D., Jones, A. S., and Arnold Print Works, manufacture of laminated fabric; treatment of cellulose fabrics, (P.), B., 330.
- De Göncz, D. See also Arnold Print Works.
- De Golyer, A. G., copper refining, (P.), B., 270.
- De Graaff, A., and General Electric Co., electric lamp [with non-sagging filament], (P.), B., 129.
- manufacture of a tungsten product [filament], (P.), B., 306*.
- De Granville de Bielize, J. E. D. See Bia, G.
- De Greiff, H. See Bredt, J.
- De Groot, W., current density of the normal cathode fall, A., 682.
- limiting condition "concentration=0" in diffusion problems, A., 1187.
- absorption of the mercury line 1941.5 Å. in the positive column and the optical determination of the concentration of mercury ions, A., 1294.
- De Groot, W., and Blok, L., detection and determination of ions in a gaseous discharge by optical methods, A., 683.
- De Groot, W. See also Naaml. Vennoots. Philips' Gloeilampfabr.
- De Groote, M., Adams, W. C., and Barnickel & Co., W. S., breaking of petroleum emulsions, (P.), B., 253.
- De Groote, O., velocity of decomposition of tribromoacetic acid in water, A., 961.
- Degtrya, M. Y., chemical purification of sugar juices, B., 541.
- De Haas, W. J., Sizoo, G. J., and Onnes, H. K., disturbance of the superconductivity of mercury by a magnetic field, A., 695.
- De Haas, W. J., Sizoo, G. J., and Voogd, J., does grey tin become superconductive? A., 1082.
- De Haas, W. J. See also Becquerel, J., Jackson, L. C., and Obreimow, I.
- De Haen Akt.-Ges., E. See Karplus, H.
- De Hemptinne, A., hydrogen activated by the electrical discharge, A., 139, 681*.
- photolysis of benzaldehyde, A., 720.
- Dehlinger, U., space-group of dicyanodiamide and crystal structure of calcium cyanamide, A., 224.
- broadening of Debye lines with cold-worked metals, A., 693.
- crystal structure of antimony oxides, A., 821.
- Dehnert, H. See Scholl, R.
- Dehnst, mechanism of the action of wood-preserving agents, B., 368.
- Dehuff, W. F., mixing machine, (P.), B., 175.
- Deicke, B. See Siebert, O., and Thiess, K.
- Dei Grisogono, G., behaviour of bacteria in milk, B., 941.
- Deiss, E., and Schikorr, G., ferrous hydroxide, A., 703.
- Déjardin, G., spectra of phosphorus for different degrees of ionisation, A., 98.
- spectrum of mercury in the far ultra-violet, A., 99.
- Dejean, P., hardening by compression and the brittleness of steel; existence of a limit of brittleness, B., 194.
- De Jong, H. G. B., gelatinisation of lyophilic sols and the structure of lyophilic gels, A., 17.
- viscosity changes at the beginning of the gelatinisation of dilute agar sols, A., 952.
- De Jong, H. H. van der Z., hæmatoporphyria, A., 1048.
- De Jong, W. F., marmatite and christophite, A., 1349.
- De Jong, W. F., and Hoog, A., carrollite (synchondymite), A., 821.

- De Jong, *W. F.*, and Willems, *H. W. V.*, [crystal structures of] diselenides of iron, cobalt, and nickel, *A.*, 575.
- De Jongh, *S. E.* See Laqueur, *E.*
- Dejussieu, *M.* See Robine, *R.*
- Dejust, *L. H.*, Stolk, (*Mlle.*) *van*, and Dureuil, *E.*, ergosterol in human blood, *A.*, 1045.
- Dekker, *A.* See Hissink, *D. J.*
- Dekker, *M.* See Hissink, *D. J.*
- De Kolosovski, *N.*, pseudo-constant of integration of Kirchhoff's formula, *A.*, 241.
- limiting value of the latent heat of vaporisation and the specific heat of the saturated vapour at absolute zero, *A.*, 1187.
- thermodynamics of irreversible reactions; evolution of physical and chemical systems in time, *A.*, 1327.
- De Kroes, *A.*, and Reclaire, *A.*, detection of artificial colouring matters in fruit juices, etc., *B.*, 766.
- De Kromme, *L.* See Waterman, *N.*
- Delaby, *R.*, and Dubois, *P.*, formation of allyl alcohol; preparation of glycerol forms, *A.*, 1354.
- Delachaux, *O. L.*, hard-alloy-steel process, (*P.*), *B.*, 527.
- De La Concha, *T.*, and Hughes, *P. A.*, composition of matter [alloy], (*P.*), *B.*, 198.
- De la Cruz, *A. J.*, non-gas electrodes for p_H determinations, *A.*, 607.
- Delaney, *M. E.*, Richardson, *L. T.*, and Cutler Hammer Manuf. Co., composition of matter [resin], (*P.*), *B.*, 275.
- Delaplace, *R.*, contraction of hydrogen under electric discharge, *A.*, 933.
- surface solutions, *A.*, 946.
- cracked-oil gas used for coastal lighting, *B.*, 113.
- manufacture of caesium compounds of pure organic colouring matters, (*P.*), *B.*, 157.
- De Laporte, *A. V.*, Dallyn, *F. A.*, and Manuel, *F. R.*, purification of sewage and analogous liquids, (*P.*), *B.*, 318.
- De Lapparent, *J.*, mineralogy of the bauxites of the Fenouillet region, *A.*, 865.
- De Lapparent, *J.*, and Stempf, *E.*, dehydrated gibbsite, *A.*, 1079.
- De la Roza, *J. J.*, and Bagasse Products Corporation, production of fibrous thread [from sugar cane], (*P.*), *B.*, 809.
- Delas, *A.*, and Société des Condenseurs Delas, producing in a solution the crystallisation of the body dissolved therein, (*P.*), *B.*, 628*.
- De Laszlo, *H.*, relations between some physical properties and the constitution of certain naphthalene derivatives, *A.*, 514.
- absorption coefficients, *A.*, 570.
- spectroscopic determination of platinum in silver alloys, *B.*, 94.
- Delaney, *P.*, biochemical synthesis of β -5-bromosalicylglucoside; attempt to synthesise β -3:5-dichlorosalicylglucoside, *A.*, 201.
- De Laval Separator Co. See Meston, *A. F.*
- Delbridge, *T. G.*, Hill, *J. B.*, and Atlantic Refining Co., liquid-phase purification of distillates, (*P.*), *B.*, 807.
- Delbrück, *M.*, extension of the group theory of terms, *A.*, 1297.
- Delcroix, *P.*, dispersion of rosin in paper sizing, *B.*, 851.
- De Leeuw, *F. J. G.* See Hooft, *F. V.*
- Delépine, *M.*, ammoniated iridodipyridino-salts, *A.*, 72.
- Delete Co., Inc. See Nance, *W. O.*
- Del Fresno, *C.*, contraction in the formation of volatile hydrides, *A.*, 6.
- heat of formation of the compound HCl.HBr , *A.*, 592.
- constitution of silver subfluoride, *A.*, 694.
- energy of formation of the compound HCl.HBr , *A.*, 955.
- Delhougne, *F.*, pepsin content of gastric juice, *A.*, 913.
- Dellepiane, *G.*, placental function. I. Carbohydrate metabolism (III and IV), *A.*, 545.
- Delong, *W. A.*, pentosan content in relation to winter hardness in the apple, *B.*, 683.
- Delore, *P.*, content in reduced glutathione of animal tissues during tuberculosis and various intoxications, *A.*, 196.
- glutathione content of organs of tuberculous guinea-pigs, *A.*, 322.
- Delorme, *R.* See Perrin, *F.*
- Delrue, *G.* See Perlzweig, *W. A.*
- Deltex Co. See Jacoby, *R. W.*
- De Lucia, *P.* See Quagliariello, *G.*
- Delvalle, *R.* See Barbour, *P. A.*
- Delwiche, *J.*, gas-heated furnace, *B.*, 71.
- Demag Akt.-Ges., rotary retort for the drying and low-temperature carbonisation of brown coal, etc., (*P.*), *B.*, 805.
- De Mallemann, *R.*, calculation of the rotatory power of quartz, *A.*, 576.
- internal field of polarisation [of the molecules of a substance under the action of an external field], *A.*, 1172, 1310.
- Demann, *W.*, neutralisation of [crude] ammonium sulphate crystals, (*P.*), *B.*, 123.
- recovery of acid and resinous matter from acid sludges formed in the refining of mineral oils, (*P.*), *B.*, 222*.
- De Meester, (*Miss*) *W. A. T.* See Moesveld, *A. L. T.*
- Demény, *L.*, and Nitta, *I.*, crystal structure of thiocarbamide, *A.*, 819.
- Demianovski, *S.*, rôle of tryptophan in the animal organism, *A.*, 542.
- De Mier, *F.*, and Butchart, *W. A.*, [ore] flotation machine, (*P.*), *B.*, 127.
- Deming, *W. E.*, equipotential surface electrons as an explanation of the packing effect, *A.*, 456.
- diffusion of hydrogen through iron, *A.*, 830.
- Demmer, *E.* See Wessely, *F.*
- Demmer, *V.*, annealing of articles of iron or steel; apparatus for use in annealing metal articles, (*P.*), *B.*, 575.
- Demolon, *A.*, and Barbier, *G.*, colloidal clay, *A.*, 704.
- Demolon, *A.*, Burgevin, *H.*, and Barbier, *G.*, colloids of clay and solutions of their sols, *B.*, 641.
- De Montmollin, *G.* See Society of Chemical Industry in Basle.
- Dempster, *A. J.*, and Batho, *H. F.*, light quanta and interference, *A.*, 5.
- De Myttenaere, *F.*, the DM1 and DM2 indices and the Warsaw Congress, *B.*, 210.
- Denaeyer, *M. E.*, and Bourcart, *J.*, chemical composition of the lavas of Ahaggar, Central Sahara, *A.*, 149.
- De Nardo, *L. V.*, determination of organic carbon in soil and in pure organic compounds by means of permanganic anhydride, *A.*, 909.
- Denby, *A. P.*, [rotary] washing apparatus for coal, etc., (*P.*), *B.*, 920.
- Dengg, *R. A.*, reactivity of coke and a new method of determining it, *B.*, 392.
- Dengg, *R. A.*, and Donker, *H. J.*, corrosion and anodic polarisation of iron, *A.*, 969.
- Dengg, *R. A.* See also Donker, *H. J.*
- Denham, *H. G.*, and Marris, *N. A.*, hydrolysis of solutions of zinc sulphate and the presence of univalent zinc ions, *A.*, 1189.
- hydrolysis of certain easily reducible metallic salts, *A.*, 1189.
- Denholm, *T. D.* See Benson, *I. W.*
- Denigès, *G.*, rapid micro-determination of the phosphoric ion by ceruleo-molybdimetry, *A.*, 263.
- rapid determination of small quantities of phenol in glycerol solution, *A.*, 1149.
- rapid determination of the phosphoric ion in soils and manures by ceruleo-molybdimetry, *B.*, 420.
- micro-determination of phosphate in wine and other fermented liquids, *B.*, 462.
- Denina, *E.*, graphical methods and empirical formulæ for the study of electrolytic dissociation, *A.*, 366, 590.
- contact potentials. I. Calculation of contact potential from kinetics of diffusion, *A.*, 713.
- Denina, *E.* See also Scarpa, *O.*
- Denis, *W.*, Herrmann, *G. R.*, and Reed, *L.*, non-protein sulphur of the blood in certain pathological conditions, *A.*, 543.
- Denisevich, *V.*, gasoline stripping plant, *B.*, 661.
- Denizot, *A.*, relation between specific heat and temperature, *A.*, 696.
- Dennett, *J. H.*, Nipah palm as a source of alcohol, *B.*, 313.
- Dennino, *E.*, and Ferraro, *G.*, influence of current on solution potential of hydrogen, *A.*, 246.
- Dennis, *L. M.*, and Joseph, *S. M.*, germanium. XXIII. Germanium monosulphide, *A.*, 33.
- Dennis, *L. M.*, and Laubengayer, *A. W.*, germanium. XXI. Germanium tetrafluoride, *A.*, 33.
- Dennis, *W.* See Schlitt, *J. L.*
- Dennison, *D. M.*, shape and intensities of infra-red absorption lines, *A.*, 571.
- Denny, *F. E.*, chemical treatments for controlling the growth of buds of plants, *B.*, 583.
- De Nooijer, *C. N. J.* See Nieuwenburg, *C. J. van*.
- Densham, *H. B. A. R.* See Conybeare, *E. T.*
- Dent, *F. J.*, reactivity of coke, *B.*, 840.
- Dent, *F. J.*, and Cobb, *J. W.*, factors influencing reactivity of coke. I. Heat-treatment in hydrocarbon and other gases, *B.*, 555.

- Deodhar, D. B., new bands in the secondary spectrum of hydrogen, A., 1067.
- Deodhar, G. B., and Kothari, D. S., elastic behaviour of india-rubber, B., 419.
- De Ong, E. R., petroleum oil as carrier for insecticides and as plant stimulant, B., 724.
- De Ong, E. R., Knight, H., and Chamberlain, J. C., petroleum oil as an insecticide for citrus trees, B., 136.
- De Ong, E. R., and Tyler, J., potassium xanthate as a soil fumigant, B., 795.
- De Paolini, I., and Imberti, A., dioximes. XLVIII, A., 620.
- De Paolini, I. See also Ponzio, G.
- De Peniagua, Y., continuous process for solidifying liquid hydrocarbons, (P.), B., 116.
- Depew, H. A. See McKee, R. H.
- Depisch, F., and Hasenöhr, R., insulin resistance in diabetes, A., 1153.
- Deppe, W. P., and Summers, L. L., distillation of hydrocarbon oils, (P.), B., 397.
- Deppe Söhne, A., and Zeitschel, O., isolation of alcohols and phenols from mixtures, (P.), B., 874.
- Depth-O-Tone Corporation, and Stockinger, F., [production of offset printing plates for] photo-engraving processes, (P.), B., 173.
- Dernies, J. See Pinkus, A.
- De Robillard, J. F. M. R., purification of graphite by flotation, (P.), B., 115.
- De Rosa, G. See Sensi, G.
- Derr, R. B., and National Aluminate Corporation, purification of water, (P.), B., 770.
- Derra, E., elimination of amino-acids in hepatic disease, A., 915.
- Dersch, F. See Auwers, K. von.
- Dershem, T., dispersion of long wave-length X-rays in platinum and calcite, A., 819.
- Derwies, G. W., and Sewerin, S. E., chemical composition and properties of blood before and after food. II. Changes of the alkali reserve of the blood and of its chloride content during the digestion process, A., 192.
- Desai, B. N., kinetics of coagulation, A., 361.
- cerium hydroxide sols and gels, A., 948.
- coagulation of thorium hydroxide sols by electrolytes. I. Kinetics of the coagulation. II. Relation between the purity of the sol and the influence of similarly charged ions on the electrolytic coagulation of thorium hydroxide sol. III. Stabilising action of alkali and alkaline-earth ions. IV. Coagulation by electrolyte mixtures, A., 950.
- Desai, B. N. See also Bolam, T. R.
- Desai, R. D., nitro-derivatives of dibenzylaniline, A., 1237.
- Desalbres, L., and Dubourg, J., fatty essence [oxidised turpentine oil], (P.), B., 866.
- De Saules, C. A. H., and American Smelting & Refining Co., recovery of zinc oxide [from ores], (P.), B., 58.
- Desborough, A. P. H., Thomson, T., and Knight, R. S. G., nitration of cellulosic materials, (P.), B., 693.
- Desborough, A. P. H. See also Smith, F. E.
- Desbrousses, (Mlle.) F. See Dubrisay, R.
- Desch, C. H., cohesion: a general survey, A., 111.
- Descombes, M. See Tassilly, E.
- Desse, D. von, blood-corpuscles of cows and foetuses in hypertonic salt solutions, A., 1268.
- comparative determinations of proteins in horse-serum, A., 1391.
- Desfemmes, A. See Bordas, F.
- De Silva, F. A., and Carlisle, G. G., direct production of steel or steel alloys from titaniferous ores and iron sands, (P.), B., 527.
- Deslaires, H., secondary spectrum of hydrogen and other spectra, A., 1.
- [constitution of the solar atmosphere], A., 340.
- Desmarest, (Mlle.) M. See Bridel, M.
- Desmaroux, J., evolution of gases from heated nitrocellulose powders, B., 70.
- microscopical examination of B-powders, B., 70.
- distribution of diphenylamine in B-powder, B., 655.
- fixation of camphor by nitrocellulose, B., 656.
- determination of camphor in [propellant] powders, B., 656.
- Desmurs, G., osage-orange and fustic extracts, B., 904.
- Desparmet, E., Schmitt, F., and Association Parisienne pour l'Industrie Chimique, rendering leather soft and pliable, (P.), B., 682.
- Desparmet, E. See also Association Parisienne pour l'Industrie Chimique.
- D'Espine, J., retardation of β -rays by matter, A., 343.
- Dessemond, A., impregnation of wood with two or more liquids, (P.), B., 232.
- Desvergues, L., solubility of diphenyldiethylcarbamido in water, alcohol, and other organic solvents, A., 1086.
- solubility of diphenylamine in water, alcohol, and other organic solvents, A., 1181.
- nephelometric method for determining benzene in alcohol, B., 254.
- De Sveshnikoff, W. W. See Vanick, J. S.
- De Toni, G., composition of the blood of children, A., 316.
- De Tournadre, J., examination of residues from the refining of oils and fats, B., 236.
- Detzel, A. See Kögl, F.
- Deuel, H. J., jun., and Milhorat, A. T., conversion of fat into carbohydrate. I. Metabolism of acetic acid, A., 1050.
- Deuel, H. J., jun., Sandiford, I., Sandiford, K., and Boothby, W. M., nitrogen minimum; effect of protein-free diet on urinary nitrogen and on heat production; effect of thyroxine following protein-free diet, A., 443.
- Deulofeu, V., allyl hexoate and octoate, A., 394.
- esters of α -bromobutyric acid, A., 736.
- allyl derivatives, A., 1214.
- propyl β -dibromopropyl ether, A., 1354.
- esters of α -dibromopropionic acid, A., 1354.
- Deussen, E., mono- and sesqui-terpene series. I. West Indian sandalwood oil. II. Nomenclature of the caryophyllene series, A., 1377.
- Deussen, E. [with Weiss, F., Hacker, P., and Hille, P.], mono- and sesqui-terpenes [caryophyllene, cedrene, and cadinene], A., 70.
- Deusser, E. See Braun, J. von.
- Deutsch, A. See Feigl, F.
- Deutsch, D., reversible and irreversible chemical phenomena at interfaces, A., 1183.
- Deutsch, D., and Loebmann, S., lyotropic properties of the nitrite ion, A., 1184.
- Deutsch, G. See Plotnikov, J.
- Deutsch, H. See Baum, E.
- Deutsch, W., electrical precipitation of metalliferous dust from industrial gases, B., 162.
- Deutsch, Waller, nuclein metabolism. XVII. Liver-nucleotidase, A., 550.
- Deutschberger, O., composition of the compounds containing residual carbon and nitrogen; oxyproteic acids in blood, A., 1270.
- Deutsch-Luxemburgische Bergwerks- & Hütten-Akt.-Ges., and Schneider, Adolf, manufacture of a magnetic core material, (P.), B., 790.
- Deutsche Bergin-Akt.-Ges. für Kohle & Erdölchemie, elaborating the products arising during the liquefaction of coal by hydrogenation, (P.), B., 218.
- Deutsche Edeltahlwerke Aktien-Gesellschaft. See Pakulla, E.
- Deutsche Gasglühlicht-Auer-Gesellschaft, apparatus for the purification of air and gases from suspended matter, (P.), B., 112.
- electrolysis of salt solutions, (P.), B., 305.
- manufacture of appliances and articles of highly refractory material such as oxide of zirconium, of thorium, and of the rare earths, (P.), B., 368.
- catalysts for gas reactions, (P.), B., 467.
- respirators, (P.), B., 588.
- Deutsche Gasglühlicht-Auer-Gesellschaft, and Hanseatische Apparatebau Ges., indicating the termination of the period of use of breathing cartridges supplying oxygen, (P.), B., 914.
- Deutsche Gasglühlicht-Auer-Gesellschaft, Wollin, K., and Smolezyk, E., indicating or controlling devices operating in the presence of impurities or other additions to gases or liquids, (P.), B., 3.
- Deutsche Glühfadefabrik R. Kurtz & P. Schwartzkopf G.m.b.H. See Metallwerk Plansee G.m.b.H.
- Deutsche Gold- & Silber-Scheidanstalt vorm. Roessler, manufacture of potassium or potassium sodium cyanide from calcium cyanamide, (P.), B., 13.
- production of alkali hydride, (P.), B., 90.
- preparation of pyridine derivatives, (P.), B., 244.
- production of isonaphthyridine and its derivatives, (P.), B., 244.
- preparation of 2-chloropyridine, (P.), B., 348.
- production of new pyridine derivatives, (P.), B., 389.

- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, production of fumigating mixtures containing hydrocyanic acid, (P.), B., 428.
- preparation of oxygen-evolving preparations suitable for use in respiratory apparatus, etc., (P.), B., 447.
- stabilisation of liquid hydrogen cyanide, (P.), B., 604.
- hardening of iron or steel articles, (P.), B., 608.
- manufacture of objects from zirconium [oxide], (P.), B., 712.
- manufacture of refractory articles, (P.), B., 749.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, Freudenberg, H., and Kloepper, H., production of alkali hydrides, (P.), B., 191.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Schoenbeck, F., manufacture of [dental] amalgams, (P.), B., 759.
- Deutsche Sprengstoff Aktien-Gesellschaft. See Metallbank & Metallurgische Ges. A.-G.
- Deutsche Versuchsanstalt für Luftfahrt E.V., aluminium alloys, (P.), B., 715.
- Deutsche Zellstoff-Textilwerke G.m.b.H., and Spinnstofffabr. Zehlendorf G.m.b.H., treatment after spinning of artificial silk made from viscose, (P.), B., 637.
- Deutschländer, E. See Peters, K.
- De Vaney, F. D. See Lee, O.
- Devereux, P. S. See Birmingham Small Arms Co., Ltd.
- Devers, P. K. See Berry, E. R.
- Devine, J. M., and Lane, F. W., Carius determination of sulphur in less volatile petroleum oils, B., 777.
- Devine, J. P., drying of materials, (P.), B., 696.
- Devine, J. P. See also Jones, D. B.
- De Visser, W. See Fol, J. G.
- De Vogel, (Mlle.) L. See Chavanue, G.
- De Voss, (Fr.) G. See Kögl, F.
- Devoto, G., theoretical [electrode] potential of the alkaline-earth metals, A., 481, 1097.
- free energy of formation in fused salts. I. Copper and thallium halides, and mercuric iodide, A., 955.
- free energy of formation of fused alkali hydroxides, A., 1096.
- Devoto, G. See also Cambi, L.
- De Vries, O., and Beumée-Nieuwland, N., coagulation phenomena in *Hevea* [rubber] latex. V. Alcohol, alum, and sodium chloride. VI. Further observations on β -mixture, B., 276.
- cream from latex, B., 276.
- tackiness in crude rubber, B., 276.
- De Vries, T., boiling-point apparatus for calibrating thermocouples, B., 71.
- De Waard, R. H., theory of the magnetic properties of iron and other metals, A., 7.
- Dewael, A. See Bruylants, P.
- De Waele, A., vulcanised or sulphurised oil compositions, (P.), B., 273.
- De Waele, H., blood coagulation, A., 193, 663.
- Dewald, M. See Rheinboldt, H.
- Dewar, M. M., preparation of chaulmoogryl alcohol, A., 1353.
- preparation of 4-chaulmoogrylaminobenzenearsinic acid, A., 1387.
- Dewey, (Miss) J. M., intensities in the Stark effect of helium. II., A., 101.
- Dewey, (Miss) J. M., and Robertson, H. P., Stark effect and series limits, A., 566.
- Dewey, (Miss) J. M. See also Robertson, H. P.
- Dey, B. B. See Weidenhagen, R.
- De Zubiria, M. See Herrero, A.
- Dhar, N. R., ionisation in chemical change, A., 1335.
- negative catalysis in slow and induced oxidations, A., 1335.
- Dhar, N. R., and Chakravarti, D. N., change in viscosity and electrical conductivity of sols on ageing, and formation of gels of inorganic substances, A., 124.
- Dhar, N. R., Chakravarti, D. N., and Chakravarti, M. N., viscosity of colloids in presence of electrolytes, A., 474.
- Dhar, N. R. See also Banerji, S. N., Bhattacharya, A. K., Biswas, N. N., Chakravarti, M. N., Chatterji, A. C., Ghosh, S., Mohanlal, K., Mukerji, B. K., Palit, C. C., and Prohash, S.
- Dharmani, P. L. C. See Lander, P. E.
- Dhawan, C. L. See Bhatnagar, S. S.
- Dhéré, C., haemochromogen, reduced haematin, and carboxy-haematin, A., 1150.
- D'Hooge, E., centrifugal drying apparatus, (P.), B., 320.
- Diab, Y. M. See Kailan, A.
- Diack, S. L., and Lewis, H. B., synthesis of hippuric acid in the animal organism. VII. Rate of elimination of hippuric acid after ingestion of sodium benzoate, benzyl alcohol, and benzyl succinate, A., 669.
- Diakonova-Schulic, L. N. See Tronov, B. F.
- Diakova, M. See Petrenko-Kritschenko, P.
- Diamond, C., and Courtaulds, Ltd., esterification of cellulose in presence of a phenol, (P.), B., 744*.
- Diamond, G. S., and Electric Refractories Corporation, manufacture of refractory articles, (P.), B., 606.
- Diana, F. B., determination of lead in manganese bronze, B., 196.
- Diaz Aguirreche, F., catalytic hydrogenations with platinum oxide. II. Mechanism of the process, A., 172.
- Di Benedetto, E., and Marenzi, A. D., micro-determination of sodium, A., 1205.
- Dibrova, A., m. p. and b. p. of homopolar compounds as a function of the distribution of electrons in the molecule, A., 827.
- Di Capua, C., and Bertoni, A., reciprocal pair: $2\text{NaCl} + \text{Ba}(\text{ClO}_3)_2 = 2\text{NaClO}_3 + \text{BaCl}_2$, A., 711.
- Dick, J. See Spacu, G.
- Dick, S. M., and International Dry Milk Co., apparatus for dehydrating liquids, (P.), B., 553.
- Dick, W. See Bülow, G.
- Dick, W. D. See Hastie, S. H.
- Dickens, F., Dodds, E. C., and Brinkworth, D. J. T., preparation and properties of ovarian hormone in water-soluble form, A., 554.
- Dickens, P., apparatus for carrying out filtrations, precipitations, etc., in absence of air, A., 728.
- apparatus for the determination of carbon by the baryta method, A., 784.
- Dickerson, W. H., and Industrial Waste Products Corporation, spray-drying apparatus, (P.), B., 41.
- preparation of pyrophosphates, (P.), B., 124.
- desiccation [of fruit juices], (P.), B., 315.
- dehydration of liquids [dextrose solution], (P.), B., 541.
- Dickey, S. J., and General Petroleum Corporation of California, [refining of mineral oil by] treatment of one fluid by another, (P.), B., 81.
- Dickhart, W. H., behaviour of fish oils with uranium nitrate and pyrogallol, B., 130.
- standardisation of cod-liver oil, B., 416.
- Dickie, W. A., Rooney, J. H., and Celanese Corporation of America, manufacture of products having a basis of cellulose derivatives, (P.), B., 295.
- Dickie, W. A. See also British Celanese, Ltd.
- Dickins, A. H., Hugh, W. E., and Kon, G. A. R., three-carbon system. XVII. *cyclo*Hexylidenacetone and *cyclo*hexylidenemethyl ethyl ketone, A., 887.
- Dickinson, F. G. See Firth, J. C. B.
- Dickinson, M., apparatus [container] for use in the purification of substances by means of radio-active materials, (P.), B., 3.
- Dickinson, R., Heilbron, I. M., and O'Brien, F., styrylpyrylium salts. X. Anhydropyrylium bases and *spiropyrans* derived from dibenzyl ketone, A., 1139.
- Dickinson, R. G., and Baxter, W. P., quantum yield in the photochemical decomposition of nitrogen dioxide, A., 491.
- Dickinson, R. G., and Billicke, C., crystal structures of β -benzene hexabromide and hexachloride, A., 465.
- Dickinson, R. G. See also Beckman, A. O.
- Dickson, A. D. See Totttingham, W. E.
- Dickson, J. B. See Trumbull, H. L.
- Dickson, J. R. See Anderson, V. G.
- Diehl, R. See Thiel, A.
- Dieke, G. H., Takamine, T., and Suga, T., new regularities in the band spectrum of helium, A., 677, 1295.
- Diekmann, J. J. See Wibaut, J. P.
- Diels, O., and Alder, K., syntheses in the hydroaromatic series. I. Additions of di-"en"-hydrocarbons, A., 1018.
- Diels, O., Gädke, W., and Körding, P., dehydrogenation of cholesterol. III., A., 169.
- Diels, O., and Karstens, A., dehydrogenation by selenium. II., A., 51.
- Diemair, W., and Sichert, K., importance of hydrogen-ion concentration for the distillery, B., 797.
- Diemair, W. See also Rüdiger, M.
- Diem-Bernet, U., light-sensitive films, (P.), B., 69, 625.
- Diener, O., manufacture of tools of tungsten, (P.), B., 716.
- Dienger, G., transition of butyl bromide, A., 1100.
- Dienst, manuring of heavy soils rich in potash, B., 134.

- Dienst, K. See Amme, E.
- Diepschlag, E., and Feist, K., destruction of blast-furnace building materials, particularly firebricks, B., 711.
- Dieterle, W. See I. G. Farbenind. A.-G., and Matthies, O.
- Dietmann, H. See Müller, Erich.
- Dietrich, K. See I. G. Farbenind. A.-G.
- Dietrich, K. R., determination of aromatic hydrocarbons in petrols by means of the "alcohol value," B., 882.
- Dietrich, S., and Ebster, H., influence of convulsions on the gases and the reaction of blood: mechanism of action of strychnine, A., 670.
- Dietrich, W. See Bergl, K., and Keller, G.
- Dietzsch, W. See Ditmar, R.
- Dietz, R. See Pollak, I.
- Dietzel, R., and Pankow, U., determination of surface-development of foaming drugs, A., 832.
- Dietzel, R., and Schlemmer, F., disinfectant action of sodium toluene-*p*-sulphochloroamide, particularly of "chloramine-Heyden," B., 428.
- Dietzel, R., Sedlmeyer, J. [with Krembs, E.], chemistry of mercury ointment, B., 913.
- Dietzsch, F., treatment of ores of copper and other metals, (P.), B., 128, 716*.
- extraction of metallic values [copper, lead, and zinc] from ores, (P.), B., 373.
- wet extraction of copper, (P.), B., 898.
- Di Franco, S., analcime, A., 865.
- apophyllite, A., 865.
- Diggelen, J. C. M. van, and Naamlooze Vennootschap Octrooi Maatschappij "Vedé," manufacture of a textile material from vegetable raw material, (P.), B., 188*.
- Diggs, S. H., effect of sulphur in gasoline on wrist-pin corrosion in automobiles, B., 179.
- Diggs, S. H., and Campbell, F. S., chemistry of lead "soaps" made from litharge and neutral fat, B., 717.
- Dijatschovski, S. I. See Dumanski, A. V.
- Dikova, M. G. See Lubarski, G. D.
- Dill, D. B., calculation of cell volume changes as a function of pH, A., 439.
- Dill, D. B., Bock, A. V., Caulaert, C. van, Fölling, A., Hurxthal, L. M., and Henderson, L. J., blood as a physico-chemical system. VII. Composition and respiratory exchanges of human blood during recovery from pernicious anaemia, A., 914.
- Dill, D. B. See also Talbot, J. H.
- Dillen, L. R. van, hydrogen-ion concentration [in rubber sera], B., 681.
- Dilley, W. E. See McCay, C. M.
- Dillon, O. L., jun., preparation of road-building material, (P.), B., 15.
- Dillon, R. T., and Lucas, H. J., derivatives of *n*-heptane, A., 989.
- Dillon, R. T. See also Lucas, H. J.
- Dilthey, P. See Fischer, Franz.
- Dilthey, W., colour and constitution, A., 60.
- Dilthey, W., Bach, E., Grütering, H., and Hausdörfer, E., heteropolar carbon compounds. V. Influence of phenoxy- and substituted phenoxy-groups on the halochromy of chromogens, A., 180.
- Dilthey, W., and Wizinger, R., extension of Witt's colour theory on a basis of chemical co-ordination, A., 627.
- Dilthey, W., and Wübken, H., heteropolar carbon compounds. VI. *spiro*Pyrans, A., 767.
- Dimbleby, V., and Turner, W. E. S., relationship between chemical composition and the resistance of glasses to the action of chemical reagents. II. Glasses containing iron oxides, B., 404.
- Dimbleby, V. See also Canwood, J. D.
- Dimick, A. See Underhill, F. P.
- Dimitrievitch, B., case of pseudopolychroism in calcite, A., 41.
- Dimitriou, A. G., dipyrindine iodostannate, A., 1378.
- Dimm, C. R., and Robinson Manufacturing Co., mixing and crushing machine, (P.), B., 506.
- Dimroth, O., and Michaelis, W., intramolecular change in 5-amino-1:2:3-triazoles, A., 76.
- Dinan. See Thompson, M. de K.
- Dine, J. H., and Billington, C. H., separators and filters for liquids, (P.), B., 176.
- Dinet, J. See Leulier, A.
- Dingemans, H. H. See Nieuwenburg, C. J. van.
- Dingemans, E., and Wibaut, J. P., pharmacology of certain pyridylpyrroles and derivatives of 2-aminopyridine, A., 919.
- Dingemans, E. See also Laqueur, E.
- Dingle, H., spectrum of fluorine (F₁). II., A., 98.
- Dingler, O. See Gebauer-Fülneegg, E.
- Dingmann, T. See Schenck, R.
- Dinner, H., influence of sulphonic groups and other substituents on the colour of trisazo-dyes, B., 923.
- Dinsmore, R. P., and Vogt, W. W., classification of [organic] accelerators [of vulcanisation of rubber], B., 721.
- Dinwiddie, J. G., and Du Pont de Nemours & Co., E. I., manufacture of vat dyes, (P.), B., 400*.
- D'Inzeo, U. A., obtaining indelible writings and prints, (P.), B., 24.
- Dirac, P. A. M., quantum theory of the electron. I. and II., A., 344, 456.
- Dirks. See Roemer, T.
- Dirks, B., preservation of green fodder containing sap, (P.), B., 34.
- influence of soil reaction on results obtained by the Neubauer method, B., 796.
- Dirks, E. F. See Mead, B.
- Dirr, K. See Felix, K.
- Dirscherl, W. See Freudenberg, K.
- Dischendorfer, O., *m*-nitrobenzylidenedi- β -naphthol [*m*-nitrophenyldi-2-hydroxy- α -naphthylmethane], A., 767.
- acid from oxidation of α -naphthol, A., 1370.
- Dischendorfer, O., and Nesitka, E., condensation of aldehydes and phenols. III. Nitrated *ms*-phenyldinaphthaxanthens, A., 1021.
- Disler, A. See Ruggli, P.
- Dispersions Process Inc. See Pratt, W. B., and Richards, T. G.
- Dissel, T. A., and Cameron Appliance Co., treatment of articles being galvanised, (P.), B., 644.
- Diston & Sons, Inc. H. See Allen, H. B.
- Distilleries des Deux Sèvres. See Société Anonyme des Distilleries des Deux-Sèvres.
- Distillers Co., Ltd., and Peake, A. M., production of citric acid, (P.), B., 425.
- Distl, A. See Enderlen, E.
- Ditchburn, R. W., continuous absorption of light in potassium vapour, A., 105.
- photo-electric threshold and heat of dissociation of the potassium molecule, A., 681.
- Ditmar, R., relative action of vulcanisation accelerators in vulcanite mixings, B., 61.
- leather substitute, B., 205.
- removing dried ink from vulcanite fountain pens, B., 341.
- titanium dioxide rubber enamels, B., 614.
- effect of flour in sulphur-vulcanised rubber mixtures, B., 903.
- Ditmar, R., and Ballog, G., reduction of period of vulcanisation of thin dipped goods in sulphur chloride vapour, B., 165.
- comparison of zinc oxide, lithopone, zinc sulphide, and titanium dioxide in [rubber] films vulcanised with sulphur chloride, B., 308.
- Ditmar, R., and Dietzsch, W., rubber vulcanisation accelerators in ultra-violet light, B., 493.
- Dittler, E., diffusion in crystals with overgrowths, A., 225.
- synthesis of sapphirin, A., 1199.
- analysis of chrome iron ore, B., 195.
- Dittlinger, H., manufacture of plastic hydrated lime, (P.), B., 485.
- Dittmann, K. E., Faerber, K., and Gelsenkirchener Bergwerks Akt.-Ges., production of manganese peroxide and other manganese oxides from manganese-containing ores and substances, (P.), B., 523.
- Dittmer, M., composition of normal oleines, B., 578.
- Ditz, H., reaction between atmospheric oxygen and strongly acid iodide solutions as a possible source of error in iodometric analyses, A., 263.
- formation of oxycellulose and carbon dioxide from cellulose, B., 84.
- Diven, T. M., acid or sea-water resisting [aluminium-tin] alloy, (P.), B., 95.
- Dix, E. H., jun., and Heath, A. C., jun., equilibrium relations in aluminium-silicon and aluminium-iron-silicon alloys of high purity, B., 126.
- Dixon, H. B., influence of steam and of hydrogen on the burning of carbon monoxide, A., 1332.
- Dixon, M., action of carbon monoxide on the autoxidation of thiol compounds, A., 1149.
- Dixon, M. See also Bernheim, F.
- Djatschkov, N. See Oparin, A. I.
- Djelatides, D. See Javillier, M.

- Doak, B. W., and Packer, J., metallic derivatives of hydroxy-esters. I. Copper and nickel derivatives of methyl salicylate, A., 1373.
- Dobrev, Alexander K., Dobrev, Assen K., and Iconomov, D. K., separation of substances of varying sp. gr., (P.), B., 915.
- Dobrev, Assen K. See Dobrev, Alexander K.
- Dobrezov, L., and Terenin, A., fine structure of the sodium D lines, A., 1066.
- Dobrzanski, A., and Anurov, B., properties of sulphonic acids from petroleum products, B., 630.
- Dobrzanski, A., and Murejeva, A., liquid-phase cracking [of hydrocarbons], B., 591.
- D'Obry, V. P. H. I. W., extraction of nutritive matter from fibrous vegetable materials, (P.), B., 728.
- Dobrzyński, F., active volume, A., 1325.
- Dobson, G. M. B. See Götz, W. P.
- Doehlenko, J. J., sugar losses in the storage of beets, B., 137.
- Dodd, A. S., production of uniform stains in the Gutzzeit test for arsenic, A., 498.
- modification of Ridsdale's method for determining phosphoric acid, B., 445.
- Dodd, L. E., method for comparing the times of mixing of two transparent liquids in different proportions, and some experimental results, particularly with gasoline and carbon disulphide, A., 116.
- Dodds, E. C. See Davies, D. T., and Dickens, F.
- Dodge, B. F., isotherms and isobars for air separation studies, B., 892.
- Dodge, H., treatment of hides or skins, (P.), B., 278, 310, 763, 905*.
- Dodge, R. A. See Corson, B. B.
- Dodonov, J., and Medox, H., Grignard's reaction; preparation of tetraphenylphosphonium salts, A., 782.
- constitution of hydrogen disulphide; action of hydrogen disulphide on compounds of trivalent phosphorus, A., 1200.
- Doebelin, F., workable copper-silicon alloys resistant to corrosion, (P.), B., 609.
- Döhner, O. H., prevention of oxidation during the annealing of metal [iron or steel] bands or wires, (P.), B., 608.
- Doenecke, F. See Bocher, E.
- Dönnges, E. See Hensler, F.
- Doepke, O. See Roth, W. A.
- Dörfinger, G., recognition and determination of the constituents of coal by the "float and sink" method, B., 554.
- Döring, E. See I. G. Farbenind. A.-G.
- Döring, H. See Bergel, F., and Rosenmund, K. W.
- Döring, T., and Stutzer, O., Columbian glass meteorites, A., 1210.
- Doerr, R., and Berger, E., colloid-chemical model of the double-ring phenomenon, A., 364.
- Doerschuk, V. C., Frary, F. C., and Aluminum Co. of America, calcining of coke [for electrodes], (P.), B., 514*.
- Doerschuk, V. C. See also Aluminum Co. of America.
- Dörzsch, E., preparation of finely-divided zinc oxide for ointments, B., 190.
- Doetsch, G., mathematical relationships between fine structure and the Doppler effect, A., 1295.
- Doeuvre, J. See Grignard, V.
- Dogadkin, B., secondary periodicity in Liesegang's rings, A., 833.
- Doggett, E., waterproofing materials and concrete articles treated therewith, (P.), B., 93.
- Doherty, H. L., manufacture of producer gas, (P.), B., 470.
- Doherty, H. L., and Heat Treating Co., distillation of oil, (P.), B., 358.
- Doherty Research Co. See Brandt, D. G., and Camp, H. W.
- Dohme, A. R. L., and Sharp & Dohme, benzylresorcinols, (P.), B., 244*.
- n*-amyl[yl]valerol[yl]resorcinol; isobutylresorcinol, (P.), B., 692*.
- Dohrn, M. See Chem. Fabr. auf Aktien (vorm. E. Schering).
- Doi, V., theory of specific heat, with consideration of the latent heat of fusion and vaporization, A., 9.
- Doisy, E. A. See Levy, Milton, and Thayer, S.
- Dolbear, C. E., recovery of soluble salts from natural brines, etc., (P.), B., 641.
- Dolch, M., low-temperature coke from coking coals, B., 217.
- Dolejšek, V., discrepancies in Moseley's law, A., 339.
- Dolgov, B. N. See Ipatiev, V. N.
- Dolinek, A., L-glutimic acid as nitrogenous nutriment for yeast, B., 31.
- Dolinek, A., influence of the determination of the sugar content on fresh slices [of beetroot] by different methods of the total loss, B., 461.
- Doll, C. E. See Holcroft, C. T.
- Dollof, A. F. See Winslow, C. E. A.
- Doman, A. See Lampen- & Metallwaren-Fabr. R. Ditmar Gebr. Brüner A.-G.
- Dombach, J. W., treatment of meal, flour, or other milling products, (P.), B., 138.
- Domec, P., composition and distillation of shale present in potash mines, B., 43.
- Dominici, G., determination of iron [in organic substances], A., 1164.
- Dominik, W., catalysts of the reaction $\text{CO} + \text{H}_2\text{O} \rightleftharpoons \text{CO}_2 + \text{H}_2$, A., 968.
- preparation of nitrates and a dry mixture of chlorine and nitrosyl chloride, (P.), B., 192*.
- Dominikiewicz, M., structure of feldspars and of mica, A., 41.
- Domke, R. See Neumann, B.
- Domontovitsch, M., and Abolina, G., influence of soil reaction on flax and oats, B., 829.
- Domontovitsch, M., and Schestakov, A., solubility of rock phosphates as affected by plant roots, B., 683.
- Donaldson, J. G., Coles, H. L., and Guardian Metals Co., production of a refractory material [alloy]; alloy and material employing the same, (P.), B., 413.
- refractory material, (P.), B., 606.
- Donaldson, W., and Furman, R. W., quantitative studies of phenols in water supply, B., 110.
- Donat, J. See Scholl, R.
- Donat, K., and Philipp, K., efficiency of β -recoil of thorium-B, A., 3, 810.
- recoil β -particles from thorium-B, A., 343.
- Donath, E., preparation of acetone, B., 150.
- Donath, W. F., composition of the blood of various human races and some analyses of pathological blood, A., 314.
- Donde, A. See Frumkin, A.
- Donker, H. J., and Denge, R. A., corrosion of iron and its anodic polarisation, A., 599.
- Donker, H. J. See also Denge, R. A.
- Donnelly, J. T., Foott, C. H., Nielsen, H., and Reilly, J., mercury oscillating pump, A., 147.
- Dōno, T. See Asahina, T.
- Doolittle, A. K., universal tank-calibration chart, B., 351.
- Dootson, P. See British Dyestuffs Corporation, Ltd.
- Dorabialska, (Mlle.) A. See Swientoslawski, W.
- Doran, W., and Gillam, A. E., formation of a polymeride of carbon monosulphide by ultra-violet irradiation of carbon disulphide; absorption spectrum of carbon disulphide in carbon tetrachloride, A., 1198.
- Doran, W. L., acetic acid as a soil disinfectant, B., 583.
- Dorcas, J., and Forbes, G. S., self-integrating chemical actinometry for ultra-violet dosage or other specific purposes, A., 139.
- Dore, W. H., relation of boron to the growth of the tomato plant, A., 1290.
- Dore, W. H. See also Sponsler, O. L.
- Dorey, R. J., grinding mill, (P.), B., 72.
- Dorfmann, W. A. See Rabinovitch, A. S.
- Dorgelo, H. B. See Abbink, J. H.
- Dornauf, J., silicon-aluminium casting alloys, B., 755.
- aluminium and its alloys in the chemical and allied industries, B., 787.
- Dorr, J. V. N., and Dorr Co., clarification of cane-sugar juice, (P.), B., 207.
- Dorr Co., Ramsey, E. R., and Bull, A. W., continuous defecation of sugar juices, (P.), B., 345.
- Dorr Co., and Weber, W. C., separation of solids from liquids [in thickeners], (P.), B., 40.
- Dorr Co. See also Dorr, J. V. N.
- Dorrance, R. L., and Gardiner, W. C., polarisation and resistivity in nickel-plating solutions, B., 823.
- Dorransoro, J., oxidation of pyridine and the pyridine nucleus by sodium persulphate, A., 185.
- Dorsch, K. E., and Kallmann, H., scission of hydrogen molecules by electronic collision, and chemical detection of the atoms produced, A., 685.
- Dorset, M. See Herley, R. R.
- Dorsey, F. M., the Madsen process [for the degasification of metal surfaces before plating], B., 862.

- Dorsey, H., effects of limestone and hydrated lime on biochemical activities in acid soils, B., 764.
- Dosne, P., novel [colour] effects on half-silk materials, B., 812.
- Dougherty, G., preparation of benzophenone, A., 417.
- Dougherty, G. See also Rogers, V. C.
- Dougherty, R. S. A. See Cort, S. J.
- Doughty, H. E., production of coloured cement or cement mixtures, (P.), B., 93.
- Doughty, J. L. See Wyatt, F. A.
- Douglas, A. V., astrophysical estimates of ionisation potentials of iron, yttrium, and lanthanum, A., 682.
- Douglas, W. A., and Du Pont de Nemours & Co., E. I., concentration of ores and minerals by flotation, (P.), B., 162, 305.
- Douglass, W. F. See Conant, J. B.
- Doumeyrou, L. J., impregnating leather and pelts and rendering them elastic, (P.), B., 134.
- Douris, R., and Beck, J., differentiation between normal and syphilitic sera by means of organic colloids, A., 1395.
- Douthitt Engineering Co. See Bosworth, A. W.
- Dow, W. T. See Ogg, W. G.
- Dow Chemical Co. See Gann, J. A., Smith, A. K., and Veazey, W. R.
- Dower, G. See Findlay, W. M.
- Dowling, P. H., contact potential between the solid and liquid phases of bismuth, A., 352.
- Downs, C., and Bellwood, R. A., extraction of oil from the pericarp of palm fruit, nuts, etc., (P.), B., 99.
- Downs, C. R., catalyst carrier [for oxidation of organic compounds], (P.), B., 516*.
- Downs, C. R., Strange, C. H., and Hirsch-Lederer Synd., Inc., cleaning of coal, (P.), B., 218.
- Downs, C. R., Weisberg, L., and Barrett Co., water-resistant polyhydric alcohol-carboxylic acid resins, (P.), B., 419*.
- Downs, C. R., and Weiss & Downs, Inc., fusion of aromatic sulpho-compounds, (P.), B., 293.
- Downs, T., up-draught process of and muffle kiln for firing, (P.), B., 672.
- Downward, J. S., production of asphalt-paving mixtures, (P.), B., 299.
- Dowthwaite, S. See Lawton, G. O.
- Dox, A. W., action of the Grignard reagent on alkylbarbituric acids, A., 185.
- [preparation of] acetamidine hydrochloride, A., 624.
- Dox, A. W., and Jones, E. G., derivatives of barbituric acid, A., 1024.
- Dox, A. W., Yoder, L., and Parke, Davis & Co., halogeno-tert-alkyl carbamates, (P.), B., 316.
- Doyle, H. C. See Martin, F. J.
- Doyle, J., and Clinch, P., seasonal changes in conifer leaves, with reference to enzymes and starch formation, A., 333.
- metabolism of conifer leaves, A., 1407.
- catalase content of conifer leaves, A., 1408.
- Doyon, M., highly active anticoagulant from tissue, A., 194.
- Drabkin, D. L., normal urinary pigment. I. Relationship to diet and metabolism. II. Relationship to basal metabolism, A., 85.
- Draemann, M., manufacture of rubber filaments, etc., (P.), B., 904.
- Draffin, J. O., formation and dissolution of calcium hydroxide crystals in Portland cement, B., 368.
- Draisbach, F. See Benckiser, T.
- Draisma, E. F., leaden plates for accumulators, (P.), B., 612.
- Drake, E. T., and Cudahy Packing Co., production of nitrites, (P.), B., 927.
- curing meat, (P.), B., 943.
- Drake-Law, H., caramel, B., 206.
- Drakeley, J. See Shacklock, G. W.
- Draper, H. D., catalytic oxidation of carbon monoxide. IV. Pore volume of the catalysts manganese dioxide, copper oxide, and mixtures of these oxides, A., 1336.
- Drastich, L., modification of the Barcroft blood-gas apparatus, A., 82.
- influence of reduced atmospheric pressure on the hæmoglobin concentration of the blood-corpuscles and on the action of the spleen on blood regeneration, A., 785.
- Drathen, E. von, determination of barium hydroxide, B., 602.
- Drawe, P., testing for iodine in potable waters, B., 350.
- Drboglav, M. A. See Smirnov, A. I.
- Drea, W. F. See Boissevain, C. H.
- Dreaper, W. P., alloy [for jets used in spinning artificial silk], (P.), B., 759*.
- apparatus for filtering solutions used in manufacture of artificial silk, etc., (P.), B., 854*.
- Drechsel, O. See Kuhn, J.
- Drechsler, J., absorption of light by iron pentacarbonyl, A., 1075, 1304*.
- Drees, M., apparatus for treating liquids with gases or for roasting pyrites, (P.), B., 112.
- apparatus for treating gases with liquids, (P.), B., 112.
- Dreffein, H. A., apparatus for producing and treating gas, (P.), B., 116.
- Drescher, H. A. E., Thomas, J., and Scottish Dyes, Ltd., production of dye intermediates [phenyl α -naphthyl ketone], (P.), B., 474.
- Dresel, K., influence of arsenious acid on respiration and fermentation. II., A., 325.
- action of arsenious acid on the respiration model, especially on the oxidation of tartaric acid in presence of iron, A., 326.
- micro-determination of blood-sugar, A., 564.
- oxidation-promoting action of thyroxine, A., 1404.
- Drew, H. D. K., cyclic organo-metallic compounds. IV. Tellurylium compounds, A., 434.
- cyclic organo-metallic compounds. V. Phenoxselenine and phenoxthionine from phenoxtellurine; selenylium and thionylium compounds, A., 434.
- Drew, H. D. K., and Haworth, W. N., polysaccharides. III. Molecular complexity of inulin, A., 1360.
- Drew, H. D. K., and Porter, C. R., Pregl's micro-analytical method for determination of carbon and hydrogen, A., 312.
- Drew, R. B. See British Glues & Chemicals, Ltd.
- Dreyer, N. B., acetone substances in the urine on carbohydrate and fat diets, A., 86.
- Dreyfus, H., manufacture of aliphatic acid anhydrides, (P.), B., 45, 515.
- manufacture of acetic anhydride, (P.), B., 82.
- treatment [weighting] of yarns, fabrics, films, etc. [containing cellulose esters or ethers], (P.), B., 227, 444.
- manufacture of compositions with cellulose derivatives, (P.), B., 296*.
- dyeing and mordanting of materials containing cellulose derivatives, (P.), B., 331, 402.
- dyeing, printing, or stencilling of materials made of or containing cellulose esters or ethers, (P.), B., 331.
- dyeing, printing, or stencilling of materials composed of or containing cellulose ethers, (P.), B., 364.
- manufacture of artificial textile products, (P.), B., 445*.
- dyeing, printing, or stencilling of materials containing cellulose derivatives, (P.), B., 601, 639.
- Dreyfus, H. See also British Celanese, Ltd.
- Driesch, T., and Lueg, P., influence of boric acid on the dispersion of optical glasses in the near infra-red, A., 941.
- Driessen Mareeuw, W. P. H. van den, hypophosphite reaction for arsenic, A., 263.
- Drinker, K. R., and Drinker, P., metal-fume fever. V. Results of the inhalation by animals of zinc and magnesium oxide fumes, A., 543.
- Drinker, P., Thomson, R. M., and Finn, J. L., inhalation, retention, and exhalation of dusts and fumes by man. I. Concentrations of 50-450 mg. per cubic metre, A., 536.
- Drinker, P. See also Drinker, K. R.
- Drossbach, P., theoretical potentials of sodium, potassium, and calcium, A., 481.
- calculation of theoretical [electrode] potentials from thermal data, A., 1330.
- Drost, J., a case of hydrofluosilicic acid poisoning, A., 920.
- Druce, J. G. F., action of sulphuric acid on copper, A., 378.
- occurrence of indium in commercial iron sulphide and its extraction, B., 156.
- Drucker, C., electrical conductivity and specific heat of solid metals, and the occurrence of transition points, A., 10.
- palladium diffusion electrodes, A., 369.
- Drucker, C., and Hüttner, R., thermal dissociation of manganese dioxide, A., 242.
- Drucker, G., determination of hydrogen sulphide in sea-water, A., 383.
- changes in the flesh and in the brine of salted fish, B., 67.
- Drucker, J. See I. G. Farbenind. A.-G.
- Drugman, J., β -quartz twins from some Cornish localities, A., 149.
- Drumm, J. J. See Butler, J. B.

- Drumm, P. J. See Reilly, J.
- Drummond, A. A., survey of modern synthetic resins, B., 680.
- Drummond, J. C. See Marrian, G. F.
- Drury, D. R. See Elman, R.
- Dry Milk Co., irradiating milk solids with ultra-violet rays, (P.), B., 911.
- Drying Systems, Inc., and Argabrite, G. M., drying ovens, (P.), B., 552.
- Drzewina, A., and Bohn, G., retarding action of metallic silver on the development of sea-urchin eggs, A., 1278.
- Dschu, G. L. See Feist, K.
- Duane, W., general X-radiation from mercury vapour, A., 819.
- Dubac, O. See Melliand, M.
- Dubbs, C. P., cracking of hydrocarbon oils, (P.), B., 253.
- Dubbs, C. P., and Universal Oil Products Co., conversion of petroleum oils, (P.), B., 80.
- treatment of hydrocarbon oils, (P.), B., 80.
- apparatus for treatment [cracking] of oil, (P.), B., 471.
- cracking of petroleum oil, (P.), B., 472.
- Dubilier Condenser Corporation. See Capicotto, J. V.
- Dubin, H. E., Corbitt, H. B., and Metz Laboratories, Inc., H. A., manufacture of a substance producing hypoglycaemia, (P.), B., 211.
- Dubin, H. E., and Metz Laboratories, Inc., H. A., edible fat composition, (P.), B., 284.
- Dubin, H. E. See also Funk, C.
- Dubin, M., adsorption in solutions. XIII. Adsorption from mixed solutions of electrolytes, A., 831.
- charcoal as an adsorbent, A., 1317.
- adsorption of mixtures of electrolytes from dilute aqueous solution, A., 1318.
- Duboc, T. See Palfray, L.
- Duboin, A., complex copper silicates, A., 257.
- introduction of bromine and of iodine into silicates, A., 495.
- production of tenorite and crystalline oligist and cobaltous oxide, A., 602.
- Dubois, E., Volta effect, A., 846.
- influence of water content of coal and coke on retort performance and retort guarantees, B., 735.
- Dubois, P. See Delaby, R.
- Dubos, R. J., influence of environmental conditions on the activities of cellulose-decomposing organisms in the soil, B., 584.
- Dubos, R. J. See also Waksman, S. A.
- Dubourg, J., nitration products of abietic acid, A., 764.
- Dubourg, J. See also Desalbres, L.
- Duboux, M., and Mermoud, R., inversion of sucrose interpreted by the dualistic theory of catalysis and by activity of hydrogen ions, A., 967.
- Dubovitz, H., determination of the acid and saponification value of dark-coloured fats, B., 99.
- Du Bridge, L. A., photo-electric and thermionic work functions of outgassed platinum, A., 340.
- Dubrisay, R., capillary analysis, A., 385.
- surface action in chemical phenomena, A., 832.
- thermodynamic theory of catalysis, A., 1334.
- Dubrisay, R., and Desbrousses, (Mlle.) F., action of phosphoric acid on lime in the presence of clay and pulverulent materials, B., 26.
- Dubský, J. V., and Okáč, A., reaction of dyes with nitrous acid, B., 887.
- Dubský, J. V., and Rabas, A., self-acting filters, A., 985.
- Ducháček, F., objective determination of colour of malt worts, B., 726.
- Ducháček, F., and Žila, V. L., linear or logarithmic calculation of colour in malt analysis, B., 500.
- Duchange M. and Compagnie de Béthune, apparatus for transformation of ethylsulphuric acid into alcohol or ethers, (P.), B., 598*.
- Duchène, R., propagation of combustion in hydrocarbon mixtures, A., 248.
- influence of lead tetraethyl on the combustion of mixtures of air and hydrocarbons, B., 662.
- Duckham, A. McD. See Woodall-Duckham (1920), Ltd.
- Duclaux, J., and Fabrication de Soie Artificielle de Tubize Société Anonyme, concentration of acetic acid, (P.), B., 255*.
- Ducloux, E. H., and Albizzati, C. M., *Lippia hastulata* (Griseb.), Hieronymus, A., 560.
- Ducruc, H. See Maurer, E.
- Dudek, H. See Steinkoff, W.
- Dudley, H. W., specific antidiabetic principle [purified insulin], (P.), B., 465*.
- Dünwald, H. See Täufel, K.
- Dürigen, F. See Hantzsch, A.
- Dürr, F. See Frankenburger, W.
- Dürr, W. See Freudenberg, K.
- Düsterdiek, H. See Auwers, K. von, and Reissert, A.
- Dufay, L., colour photography or cinematography, (P.), B., 693*.
- Duffendack, O. S., and Black, J. G., excitation of Cu II spectrum by positive neon ions, A., 1296.
- energy level studies on metallic vapours using a high-temperature tungsten furnace, A., 1297.
- Duffendack, O. S., and Fox, G. W., excitation of the spectra of carbon monoxide by electronic impacts, A., 6.
- Duffendack, O. S., and Smith, H. L., simultaneous ionisation and excitation of molecules on collision with foreign ions, A., 1298.
- Duffendack, O. S. See also Black, J. G. and Wolfe, R. H.
- Duffield, F. L., [apparatus for] burning pulverised solid fuel or atomised liquid fuel, (P.), B., 633, 664.
- Duffieux, M., electrical and luminous effects produced by rolling mercury on glass in a vacuum, A., 467.
- Dufford, R. T., luminescence of aliphatic Grignard compounds, A., 994.
- Dufilho, E. See Barthe, L.
- Dufour, F., variations of free acidity and the concentration of buffer substances during brewing, B., 103.
- Dufour, R., power factor in high-frequency spark induction furnaces, B., 338.
- high-frequency electric induction furnace, (P.), B., 454.
- Dufraisse, C., and Gillet, A., monoacetals of α -bromodibenzoylmethane, A., 1137.
- Dufraisse, C., and Moureu, H., tautomerism of α -diketones, A., 180.
- Dufraisse, C. See also Moureu, C.
- Dufton, A. F., and Webb, C. G., uncommon common salt, A., 694.
- Dugue, G. See Bourcet, P.
- Duhamel, E. C., and Compagnie Générale des Industries Textiles, washing or cleaning of wool, (P.), B., 11, 187.
- Duhme, E., and Gerdien, H., apparatus for electrolysis with high current densities, B., 863.
- Duin, C. F. van, future development of organic chemistry, A., 42.
- calculation of general, alternating, and *ortho*-effects of substituents, A., 60, 61.
- Duin, C. F. van [with Snijder, H. G.], heterogeneous catalysis and adsorption. II., A., 849.
- Duisberg, W. See I. G. Farbenind. A.-G.
- Dulac, J. See Maume, L.
- Dumanois, P., theory of anti-detonants, A., 248.
- Dumanois, P., and Mondain-Monval, P., oxidation of hydrocarbons, B., 917.
- Dumanois, P. See also Aubert, M., and Lafitte, P.
- Dumanski, A. V., and Buntin, A. P., tartaric acid method of preparation of electro-negative sols. IV. Formation of lead hydroxide sols and gels from alkaline tartrates, A., 1321.
- Dumanski, A. V., and Dijatchovski, S. I., tartaric acid method for synthesis of electro-negative sols. V. Physico-chemical properties of tungstate-tartaric acid colloids, A., 1321.
- Dumanski, A. V., and Jakovlev, A., use of tartaric acid in the preparation of electronegative sols. III. Adsorption of sodium tartrate and succinate by aluminium hydroxide, A., 1321.
- Dumanski, A. V., and Kniga, A. G., syntheses of electro-negative sols by the tartaric acid method, A., 473.
- preparation of negatively-charged sols by means of tartaric acid. I. Properties of compounds of oxides of tin and titanium with tartaric acid, A., 584.
- Dumitrescu, D. See Angelescu, E.
- Dumke, W. H. See Harding, E. P.
- Dnmont, J., influence of prolonged cultivation on the nitrogen content of unmanured soils, B., 26.
- Dumont, J., and Ganossis, B., deflocculation and plasmolysis of the coating on soil particles, B., 63.
- Dumont, M. See Bouillenne.
- Dumski, A. I. See Tilitschev, M. D.
- Dunbar, R. T., apparent irregularities in experiments with heterogeneous X-ray beams, with special reference to the *J*-phenomenon, A., 691.
- Dunbar, T. L., and Chemipulp Process, Inc., treatment of fibrous materials for pulping purposes, (P.), B., 477.
- continuous cooking of fibrous material, (P.), B., 782.

- Dunbar, T. L., and Stebbins Engineering & Manufacturing Co., treatment of fibrous materials, (P.), B., 48.
- Dunbar, W., composition of matter [laminated paper device] for magnetic screening, etc., (P.), B., 734.
- Duncan, H. M. See Parsons, (Sir) C. A.
- Duncan, J. See Cranston, J. A.
- Duncan, W. M., distillation of hydrocarbons, (P.), B., 181.
- furnace, (P.), B., 247.
- Dundas, J. M. See Orr, J. B.
- Dunez, A. See Lesure, A.
- Dunford & Elliott (Sheffield), Ltd. See Pehrson, A. H.
- Dunin, M. S., and Schemjakin, F. M., influence of salts on the viscosity of linseed oil, A., 835.
- Dunkel, M. See Hofmann, F.
- Dunkel, W. See Kaufmann, C.
- Dunlap, F. L., and Industrial Appliance Co., flour-treating process, (P.), B., 653.
- Dunlap, F. L. See also Amdyco Corporation.
- Dunlap, H. L. See Goodhue, E. A., and Weber, P.
- Dunlevy, J., and Johnson, R., manufacture of bricks and tiles, (P.), B., 712.
- Dunlop, H. J. L., and Sibbald, A. J., machines for expressing liquids from solids, (P.), B., 507.
- Dunlop Rubber Co., Ltd., and Davies, R. C., manufacture of articles from synthetic resins or shellac, (P.), B., 614.
- Dunlop Rubber Co., Ltd., Klein, P., and Healey, A., direct production of rubber goods from rubber dispersions, (P.), B., 277.
- Dunlop Rubber Co., Ltd., McKay, R. F., Willshaw, H., Gorham, W. G., and Lee, R. F., circulating or mixing of liquids, etc., (P.), B., 658.
- Dunlop Rubber Co., Ltd., and Thornton, G. G., manufacture of articles from aqueous dispersions of rubber and similar vegetable resins or compounds thereof, (P.), B., 650.
- Dunlop Rubber Co., Ltd., and Trobridge, G. W., manufacture of rubber articles, (P.), B., 277.
- Dunlop Rubber Co., Ltd., Trobridge, G. W., and Murphy, E. A., production of rubber goods directly from latex, (P.), B., 419.
- Dunlop Rubber Co., Ltd., and Twiss, D. F., manufacture of rubber articles, (P.), B., 238.
- production of rubber goods directly from latex, (P.), B., 341.
- manufacture of rubber and compounds thereof, (P.), B., 681.
- manufacturing of articles from aqueous dispersions containing rubber, gutta-percha, balata, and similar resins, (P.), B., 904.
- Dunlop Rubber Co., Ltd., Twiss, D. F., and Murphy, E. A., manufacture of tubes of indiarubber or similar material, (P.), B., 378.
- manufacture of rubber and similar vegetable resins, (P.), B., 532.
- manufacture of hollow rubber articles, (P.), B., 616.
- covering of wire, thread-like and filamentary material, etc. with indiarubber, gutta-percha, balata, etc., (P.), B., 616.
- Dunlop Rubber Co., Ltd., Twiss, D. F., and Thomas, F., manufacture of rubber and rubber articles, (P.), B., 277.
- Dunn, J. T., determination of very small quantities of iodides, B., 402.
- Dunning, F., and Macht, D. I., azo-dyes containing antimony in the treatment of trypanosomiasis, A., 444.
- Dunning, F., and Reid, E. E., azo-dyes containing antimony. II, A., 80.
- Dunning, F., Reid, E. E., and Hynson, Westcott, and Dunning, production of primary stibinic acids, (P.), B., 943.
- Du Nouy, L., relation of the viscosity of blood-serum to temperature and the hydration of the proteins, A., 1150.
- Dunoyer, L., measurement of gases dissolved in water, A., 382.
- Dunsby, A. N. See Macted, E. B.
- Dunstan, A. E., and Shatwell, H. G., liquid fuels other than petroleum, B., 290, 436*.
- Dunstan, A. E. See also Anglo-Persian Oil Co., Ltd.
- Dunton, L. E., Jerusalem artichoke, A., 1291.
- Duparc, L., and Rogovine, E., indicator for volumetric determination of phosphoric acid, A., 979.
- Duparc, L., Rogovine, E., and Wenger, P., electronic interpretation of oxidation and reduction in analytical chemistry, A., 976.
- Duparc, L., Wenger, P., and Urfer, C. [with Charvoz, P., Hefti, Lempert, C., and Rossier, G.], gaseous catalysis by means of metals of the platinum group, A., 487.
- Dupin, (Mlle.) M. See Boutaric, A.
- Dupont, E., determination of magnesium in soils, B., 582.
- Dupont, G., and Barraud, detection of adulteration of turpentine oil, B., 792.
- Dupont, G., and Soum, M., shoots of *Pinus maritima*, A., 560.
- utilisation of Moroccan woods, B., 636.
- Dupont, G. See also Léauté, A.
- Dupont, L., semi-portable carbonising oven for fuel balls made of sawdust or other wood waste, (P.), B., 513.
- Du Pont de Nemours & Co., E. I., dyeing and printing of vegetable and animal fibres with basic dyes, (P.), B., 855.
- Du Pont de Nemours & Co., E. I., and Elley, H. W., preparation of age-resisting rubber compositions, (P.), B., 533.
- Du Pont de Nemours & Co., E. I., McBurney, J. D., and Nollau, E. H., non-livering coating compositions, (P.), B., 719.
- prevention of livering in pigmented carbohydrate-compound compositions [cellulose esters and ethers], (P.), B., 866.
- leather substitute, (P.), B., 869.
- Du Pont de Nemours & Co., E. I. See also Allen, E. H., Baldisiefen, W. D., Bishop, O. M., Booge, J. E., Bradner, D. B., Bridgwater, E. R., Burke, C. E., Calcott, W. S., Clewell, J. H., jun., Coolidge, C., Daudt, H. W., Davis, C. W., Dinwiddie, J. G., Douglas, W. A., Elley, H. W., Flaherty, E. M., Johnson, N. G., Jordan, H., Kern, J., Kramer, R. L., Landucci, A., Lawrie, J. W., Marshall, J., Monroe, K. P., O'Barr, T. A., Parmelee, A. E., Peters, W. A., jun., Reid, E. E., Seitz, J. E., Sherts, J. H., Smith, C. C., Stine, C. M., Tanberg, A. P., Taylor, H. S., and Thomson, N. W.
- Du Pont-Pathé Film Manufacturing Corporation. See Renwick, F. F.
- Du Pont Rayon Co., Blanco, G. W., and Henningsen, C., manufacture of viscose, (P.), B., 853.
- Du Pont Rayon Co. See also Gladding, E. K.
- Du Pont Viscoid Co., fire-proofed [cellulose ester] products, (P.), B., 478*.
- Dupray, M., modified digestion acid for non-protein nitrogen determination, A., 978.
- Dupuis, A. See Margailan, L.
- Dupuy, H., heating of gases and vapours, (P.), B., 41.
- Duran, F., absorption of gases by sodium chloride and aqueous sodium chloride solution, A., 1317.
- Durand, J. F., synthesis of benzoquinone, A., 762.
- Durand, J. F., and Banos, M., action of acetylene on metals yielding explosive acetylides, A., 28.
- Durand & Huguénin Société Anonyme, dyeing or printing with vat dyes on acetate silk or mixed fabrics containing acetate silk, (P.), B., 891.
- Durand & Huguénin Société Anonyme, and Farbenfabriken vorm. F. Bayer & Co., manufacture of products [water-soluble esters of vat dyes] for dyeing or printing textile fibres and other materials, (P.), B., 86.
- Durand & Huguénin Société Anonyme. See also Bauer, W., and Voltz, T.
- Durbin, F. M., absorption of potassium ions in various gases, A., 103.
- dependence of the free path of potassium ions in various gases on their velocity, A., 1299.
- Duret, G., apparatus for the clarification of liquids, (P.), B., 112.
- Dureuil, E. See Dejust, L. H., and Stolk, D. van.
- Durgan, E. S. See Pease, R. N.
- Durham, E. J. See Weiser, H. B.
- Duriron Co., Inc. See Hough, A., and Schenck, P. D.
- Durnford, A. M. I. A. W. See McLennan, J. C.
- Durrer, R. See Siemens A.-G., F.
- D'Urso, S. See Minunni, G.
- Durst, G., and Roth, H., dyeing [of cotton] with indanthrene blue GCD, B., 48.
- [dyeing of cotton with] indanthrene blue RS, B., 49.
- [dyeing with] indanthrene dyes, B., 49.
- Du Sault, L., and Loeb, L. B., mobilities of gas ions in sulphur dioxide and mixtures of sulphur dioxide and hydrogen, A., 809.
- Du Sault, L. See also Loeb, L. B.
- Dussler, E., iron crystals. IV. Dependence of magnetisation on temperature, A., 1082.
- Dutchess Bleachery, Inc. See Tice, M. E.
- Dutoit, P., and Schnorfi, A., calcium nitride, A., 1103.
- Du Toit, P. J. See Malan, A. I.
- Dutt, N. C. See De, S. C.
- Dutt, P. K. See Key, A.
- Dutt, S., and Gaswami, D. P., constitution of rottlerin from Indian kamala, A., 643.
- Dutt, S. See also Ray, A. C., and Tewari, J. D.
- Dutton, L. O., Wright's stain as a differential spore stain, A., 1403.

- Duval, M., Portier, P., and Courtois, A., amino-acids in blood of insects, A., 437.
- Du Vigneaud, V., the sulphur of insulin, A., 90.
modifications of the Haldane gas-analysis apparatus, A., 1389.
- Du Vigneaud, V., Geiling, E. M. K., and Eddy, C. A., crystalline insulin. VI. An adsorption product, A., 1160.
- Du Vigneaud, V., Jensen, H., and Wintersteiner, O., crystalline insulin. III. Nature of the sulphur linking and the isolation of cystine and tyrosine from hydrolysed crystalline insulin. IV. Isolation of arginine, histidine, and leucine. V. Distribution of nitrogen, A., 553.
- Dvorkovitz, P., extraction of petroleum products from bituminous material, (P.), B., 292.
apparatus for treatment of carbonaceous matter to obtain products therefrom, (P.), B., 341.
- Dwight & Lloyd Metallurgical Co. See Hyde, R. W.
- Dwight & Lloyd Sintering Co., Inc. See Hyde, R. W.
- Dyachuk, L., regulating the density of milk of lime, B., 669.
- D'Yarmett, E. C., and Herndon, O. K., oil-distillation process, (P.), B., 44.
oil-distilling apparatus, (P.), B., 44.
- Dyche-Teague, F. C., rubber composition, (P.), B., 494*.
- Dychno, M. A., and Briskin, O. M., examination of the biological properties of milk, B., 313.
- Dyckerhoff, H. See Willstätter, R.
- Dye, J. A., and Waggener, R. A., tissue respiration and endocrine function. I. Influence of thyroidectomy on the phenol oxidase content of animal tissues. II. Influence of thyroparathyroidectomy, A., 1048.
- Dyer Co., B. H. See Sterling, F. W.
- Dyes, W. A., conversion of lignite and coal into liquids and oils, B., 75.
- Dynamidon-Werk Engelhorn & Co., G.m.b.H. See Baumhauer, F.
- Dynamit Aktien Gesellschaft vorm. A. Nobel & Co., production of gelatinised explosives or smokeless powders, (P.), B., 317.
- Dyson, G. M., odour and constitution among the mustard oils [thiocarbimides]. I. and III., A., 283, 748.
odour and constitution among the mustard oils [thiocarbimides]. II. Effect of halogen substituents, A., 514.
odour and constitution among the mustard oils [thiocarbimides]. IV. Effect of fluorine substitution, A., 1127.
- Dyson, G. M., Mason, F. A., Renshaw, A., and British Dyestuffs Corporation, Ltd., manufacture of thiocarbazides and carbazides of the naphthalene series, (P.), B., 599*.
- Dzięciołowski, S. See Dzięciołowski, K.
- Dzięciołowski, K., and Dzięciołowski, S., α -benzyl-naphthalene. I. Reactions of 4-benzyl-naphthalenesulphonic acid, A., 405.
- Dzięciołowski, K., and Panek, M., synthesis of two hydrocarbons of high mol. wt., derivatives of fluorene and methane, A., 747.
- Dzięciołowski, K., and Ritt, E., 2-methylnaphthalene. II. Synthesis of hydrocarbons of the benzanthracene group, A., 52.
- Dziobek, W., colour temperature of the magnesium flame, A., 1065.

E.

- E.M.F. Electric Co. Proprietary, Ltd., welding electrodes, (P.), B., 790.
- Eadie, G. S., rate of reduction of methylene-blue by *Bacillus coli*, A., 798.
- Eagle-Picher Lead Co. See Calbeck, J. H., and Schaeffer, J. A.
- Eagles, B. A., biochemistry of sulphur. II. Ergothioneine from ergot of rye, A., 927.
- Earl, J. C., preparation of tetramethylethylene, A., 1112.
- Earl, J. C., Ellsworth, F. C., Jones, E. C. S., and Kenner, J., nitroso-compounds, A., 1352.
- Earl, J. C., and Kenner, J., action of hydrogen iodide on nitroso-compounds, A., 69.
- Earle, I. P. See Cullen, G. E.
- Easley, M. A., Fenner, L., and Spence, B. J., infra-red absorption spectra of the halogen derivatives of methane, A., 1170.
- Eason, L. H., and Armour, R. W., action of "active nitrogen" on iodine vapour, A., 634.
- Eastcott, (Miss) E. V., Wildier's bios; isolation and identification of "bios I.", A., 1056.
- Easter, G. J., pores in bricks, B., 858.
- Easterbrook, F. A., and Brown & Son (Alembic Works), Ltd., mixing and stirring apparatus, (P.), B., 143.
- Eastlack, H. E. See Coolidge, C.
- Eastman, E. D., theory of the Soret effect, A., 365.
E.M.F. of electrolytic thermocouples and thermocells and the entropy of transfer and absolute entropy of ions, A., 370.
[theory of end-point in electrometric titration], A., 382.
- Eastman, E. D., and Robinson, P., equilibrium in the reactions of tin with water vapour and carbon dioxide, A., 594.
- Eastman, E. D. See also Cornish, R. H.
- Eastman Kodak Co., photographic sensitizers, (P.), B., 625.
- Eastman Kodak Co. See also Branchen, L. E., Carroll, S. J., Clarke, H. T., Farrow, E. S., jun., Gray, H. le B., Malm, C. J., Prachel, C. U., Seel, P. C., Sheppard, S. E., and Tozier, G. H.
- Easton, R. W., retorts for the distillation of lignite and other carbonaceous materials, (P.), B., 436.
- Easton, W. See McMillan, A.
- Eatnough, H. See Bigelow, L. A.
- Eaton, B. J. See Bunting, B.
- Eaton, F. J., and Pexton, S., determination of volatile matter in coke, B., 509.
- Eaton, M. See McBain, J. W.
- Eaton, W. S., electrodeposition of chromium, (P.), B., 271.
- Eaves, E. C., deposition of calcium and iron in the brain, A., 320.
- Ebach, K. See Bömer, A.
- Ebel, A. See Tüdös, E.
- Ebel, F., and Bretseher, E., foundations of theory of binding forces, A., 485.
- Ebel, H., drying of crystals, (P.), B., 287.
- Eberle, A. See Küster, W.
- Eberlein, W. See Goedecke, C. E. J.
- Eberlin, L. W. See Sheppard, S. E.
- Ebers, K., purifying and bleaching of heavy spar, (P.), B., 298*.
preparatory treatment of crude heavy spar, (P.), B., 403.
- Ebert, C., Newkirk, W. B., Moskowitz, M., and International Patents Development Co., manufacture of dextrose, (P.), B., 541, 725.
- Ebert, F. See Ruff, O.
- Ebert, L., Eisenschitz, R., and Hartel, H. von, electrical symmetry of the molecular structure of methane derivatives, A., 1308.
- Ebert, L., and Hartel, H. von, dipole moment and anisotropy in fluids, A., 222.
electric dipole moments of dissolved molecules of the type CX₄, A., 462.
- Ebster, H. See Dietrich, S.
- Échevin, R. See Combes, R.
- Eck, H. van. See Biesalski, E.
- Eck, P. N. van, determination of aromatic aldehydes by titration with benzidine acetate solution, A., 313.
- Eck, R. See Kapfhammer, J.
- Eckart, C., electronic theory of metals from the point of view of Fermi's statistics, especially concerning the Volta effect, A., 467.
correspondence relationship between matrices and Fourier coefficients in the theory of the hydrogen atom, A., 811.
- Eckell, J. See Thiel, A.
- Ecker, E. E., and Rimington, C., toxic substances produced by the *Salmonella* group of organisms, A., 924.
- Eckert, A., and Langecker, E., 2-aminofluorenone, A., 521.
- Eckert, T. S., and France, W. G., adsorption at crystal faces. I. Growth and dissolution of single copper sulphate crystals in presence of gelatin and dyes, A., 358.
- Eckert, W., and Grasselli Dyestuff Corporation, manufacture of vat dyes derived from naphthalene-1:4:5:8-tetracarboxylic acid and aromatic *o*-nitroamines, (P.), B., 924*.
- Eckert, W. See also Zahn, K.
- Eckman, J. R. See Jordan, L.
- Eckstein, H., colorimetry, A., 606.
- Eclipse Petrol Economiser System Co., Ltd. See Godward, E. R.
- Eclipse Textile Devices, Ltd., and Garey, J. P., spot-dyeing of yarn, (P.), B., 332.
- Eclipse Textile Devices, Ltd., Garey, J. P., and Hasbrouck, L. P., dyeing of yarn, (P.), B., 332.
- Economic Powdered Products Co. See Callan, W. D.
- Economy Metal Products Corporation. See Coplan, Archibald Hyman.
- Eda, G., effect of atropine and scopolamine on the sugar excretion threshold, A., 794.
effect of acetylcholine chloride and pilocarpine on the threshold of sugar elimination, A., 794.
- Eddington, A. S., conditions of emission of forbidden lines, A., 450.
liquid stars and atomic volume, A., 456.
- Eddy, C. A. See Du Vigneaud, V.

- Eddy, *N. B.*, hypnotics of barbituric acid series, *A.*, 794.
 Eddy, *W. H.* See *Kohman, E. F.*
 Eddy Co., Ltd., *E. B.*, *Scherbak, H.*, and *Lutz, A.*, treatment of paper, (*P.*), *B.*, 11.
 Edee, *R. H.*, aliphatic-aromatic arseno-compounds. II. β -Hydroxyethylarsinic acid and some aryl β -arsenoethyl alcohols, *A.*, 782.
 Edeleanu, *L.*, recovery of gasoline from field and refinery gases with special reference to the Bayer charcoal process, *B.*, 510.
 Edeleanu, *L.*, and Allgemeine Gesellschaft für Chemische Industrie, conversion of high-boiling hydrocarbons into low-boiling hydrocarbons; motor fuel and refining of oils, (*P.*), *B.*, 326.
 catalyst for manufacture of hydrocarbons, (*P.*), *B.*, 514*.
 Edeleanu, *L.*, Pfeiffer, *K.*, Gress, *K.*, and Jodeck, *P.*, refining heavy mineral oils, (*P.*), *B.*, 44.
 refining of heavy mineral oils by means of sulphur dioxide in a continuous operation, (*P.*), *B.*, 397.
 Edell, *G. M.*, determination of small amounts of carbon monoxide in air, *B.*, 365.
 Edelman, *S.*, production of a derivative of 3-[hydr]oxy-1-methyl-4-isopropylbenzene [thymol], (*P.*), *B.*, 914.
 Eden, *T.*, and Fisher, *R. A.*, crop variation. IV. Experimental determination of the value of top dressings with cereals, *B.*, 27.
 Eden, *T.*, and Maskell, *E. J.*, influence of soil heterogeneity on growth and yield of successive crops, *B.*, 381.
 Eder, *J. M.*, chloramine for destruction of last traces of sodium thiosulphate in photographic plates or papers, *B.*, 769.
 Eder, *R.*, determination of morphine in opium, *A.*, 311.
 Edgar, *G.*, modified weighing pipette, *A.*, 389.
 Edgar, *G.*, and Ethyl Gasoline Corporation, recovery of bromine [from saline solutions], (*P.*), *B.*, 366.
 Edgar, *S. H.*, determination of amino-acids in blood: Folin's method, *A.*, 316.
 amino-acid content of blood of children in health and in disease, *A.*, 322.
 Edge, *S. R. H.*, rosin sizing [of paper], *B.*, 564.
 Edge, *V.* See *Venn, H. J. P.*
 Edington, *B. H.* See *Bethke, R. M.*
 Edison, *T. A.*, and Edison, Inc., *T. A.*, storage battery, (*P.*), *B.*, 163.
 production of alkali compounds from silicates, (*P.*), *B.*, 710.
 Edison, Inc., *T. A.* See *Edison, T. A.*
 Edison Swan Electric Co., Ltd., and Webster, *G. E.*, preparation of electric accumulator plates, (*P.*), *B.*, 22.
 Edkins, *N.*, and Murray, *M. M.*, effect of alcohol on the absorption of dextrose. II., *A.*, 1399.
 Edlbacher, *S.*, and Kraus, *J.*, mechanism of action of adrenalin. I., *A.*, 1403.
 Edlbacher, *S.*, Krause, *F.*, and Merz, *K. W.*, arginase. V. Occurrence of arginase in blood, and the effect of serum on its activity, *A.*, 88.
 Edlbacher, *S.*, and Merz, *K. W.*, metabolism of tumours. I., *A.*, 543.
 Edlinger, *F.*, production of colour effects on fabrics, (*P.*), *B.*, 189.
 Edmonds, *C. H. S.*, tube-still distillation, *B.*, 736.
 Edmonds, *W. J.* See Commercial Solvents Corporation.
 Edser, *E.* See *Fowler, S.*
 Edwards, *A.* See *Hay, S.*
 Edwards, *C. A.*, and Yokoyama, *T.*, influence of varying strains and annealing temperatures on growth of ferrite crystals in mild steel, *B.*, 752.
 Edwards, *G. P.* See *Mohlman, F. W.*
 Edwards, *H.* See *Green, A. T.*
 Edwards, *H. T.* See *Talbot, J. H.*
 Edwards, *J. F.*, tempering of steel, (*P.*), *B.*, 127.
 Edwards, *M. H.*, Stourbridge fireclays and the manufacture of glasshouse pots, *B.*, 192.
 Edwards, *O. K.*, Gaythwaite, *W. R.*, Kenyon, *J.*, and Phillips, *H.*, quadrivalency of selenium. III. Instability of the compounds of quadrivalent selenium derived from phenyl methyl and phenyl ethyl selenides, and phenyl- and *p*-tolyl-selenoglycollic acids, *A.*, 1147.
 Edwards, *P. W.*, and Harrison, *R. W.*, oxygen concentration for explosion prevention [in dusts], *B.*, 733.
 Edwards, *R. S.*, effect of temperature on the viscosity of air, *A.*, 116.
 effect of temperature on the viscosity of neon, *A.*, 942.
 Edwin, *E.*, and Aktieselskapet Norsk Staal (Elektrisk-Gas-Reduktion), making synthetic pig iron, (*P.*), *B.*, 863*.
 Edwin, *E.* See also Aktieselskapet Norsk Staal (Elektrisk-Gas-Reduktion).
 Eecke, *P. ver.*, the Cottrell-Moeller process [for precipitation of dust from gases], *B.*, 877.
 Eegriwe, *E.*, detection of tin, zinc, chlorine [and bromine], *A.*, 982.
 Effront, *J.* See *Boidin, A.*
 Efremov, *N. N.*, physico-chemical investigations on the higher fatty acids. I. Thermal analysis of fatty acids. A. Binary systems tristearin-tripalmitin and stearic acid-palmitic acid, *A.*, 956.
 preparation of metallic alloys by electrolysis of aqueous solutions of binary electrolytes. I. Copper and cadmium, *A.*, 969.
 Efremov, *N. N.*, and Rosenberg, *A.*, precipitation of vanadic acid on asbestos fibre, *A.*, 719.
 extraction of vanadium and its salts from residues containing vanadium, *B.*, 487.
 Efremov, *N. N.*, and Tichomirov, *A. M.*, equilibria in certain binary systems of 2:4:6-trinitromethylaminoaniline (tetryl), *A.*, 130.
 Ege, *R.* See *Carlström, A. B.*
 Egerton, *A.*, flame and combustion, *A.*, 137.
 [combustion of hydrocarbons], *A.*, 960.
 Egerton, *A. C.* See Asiatic Petroleum Co., Ltd.
 Egg, *C.*, and Klinker, *K.*, use of Stolte's ashing method in micro-analysis, *A.*, 208.
 Egg Patents, Ltd., and Milroy, *A.*, preservation of eggs, egg yolks, and egg whites, (*P.*), *B.*, 835.
 Egge, *W. S.* See *Long, J. S.*
 Eggensperger, *K.* See *Kaiser, H.*
 Egger, *F.*, and Schmitt, *K. F.*, composition of mineral springs in Berg-Cannstatt. I., *A.*, 1349.
 Egger, *I.* See *Ostwald, Wolfgang.*
 Eggert, *E.* See *I. G. Farbenind. A.-G.*
 Eggert, *H.*, manufacture of substitutes for horn and ivory from viscose, (*P.*), *B.*, 85*.
 Eggert, *Johann*, spinning-centrifuge corrosion in artificial silk manufacture, *B.*, 84.
 carbon disulphide in viscose manufacture, *B.*, 428.
 formation of poisonous gases in the manufacture of viscose artificial silk, and their removal, *B.*, 600.
 influence of metallic salts on the tensile strength of artificial silk, *B.*, 851.
 Eggert, *John* [with Schröter, *W.*], quantum yield of the photochemical decomposition of light-sensitive diazo-compounds, *A.*, 1198.
 Eggert, *John* [with Wachholtz, *F.*, and Schmidt, *R.*], photochemical action of bromine on maleic and fumaric esters, *A.*, 492.
 Eggert, *John*, and Schmidt, *R.*, absorption spectra of silver bromide and silver chloride films, *A.*, 687.
 Eggert, *John.* See also *Arens, H.*
 Eggert, *W., jun.*, treatment of plants, (*P.*), *B.*, 938.
 Eggleton, *G. P.*, Eggleton, *P.*, and Hill, *A. I.*, coefficient of diffusion of lactic acid through muscle, *A.*, 1398.
 Eggleton, *G. P.* See also *Eggleton, P.*
 Eggleton, *M. G.* See *Abramson, H. A.*
 Eggleton, *P.*, and Eggleton, *G. P.*, phosphagen, *A.*, 546.
 Eggleton, *P.* See also *Abramson, H. A.*, and *Eggleton, G. P.*
 Egler, *A. G.*, [open-hearth] furnace, (*P.*), *B.*, 627.
 Egloff, *G.*, Benner, *H. P.*, and Universal Oil Products Co., apparatus for cracking [hydrocarbon] oil, (*P.*), *B.*, 44.
 treatment of emulsified [hydrocarbon] oils, (*P.*), *B.*, 45.
 apparatus for treating hydrocarbons, (*P.*), *B.*, 181, 252, 471.
 cracking of [hydrocarbon] oil, (*P.*), *B.*, 253.
 distillation of emulsified [mineral] oils, (*P.*), *B.*, 632.
 Egloff, *G.*, and Lowry, *C. D., jun.*, sulphur toleration in gasoline, *B.*, 736.
 Egloff, *G.*, Pollock, *R. T.*, and Universal Oil Products Co., treatment of hydrocarbon oils, (*P.*), *B.*, 45.
 Egloff, *G.*, and Universal Oil Products Co., apparatus for cracking oil, (*P.*), *B.*, 471.
 cracking of petroleum oil, (*P.*), *B.*, 472.
 demulsification of hydrocarbons, (*P.*), *B.*, 472.
 Egly, *G.*, and Siemens Gebrüder & Co., electric resistance, (*P.*), *B.*, 577*.
 Egner, *H.*, and Hägg, *G.*, effect of the acidity of the support on the structure of unimolecular films, *A.*, 120.
 Egorov, *A. F.* See *Tschitschibabin, A. E.*
 Egorov, *M. A.*, phosphate applications and their influence on chernosem [soils]. IV. Reversion of phosphates in soils, *B.*, 618.
 Ehling, *L.* See *Simon, A.*
 Ehrenberg, *R.*, [micro-]determination of nitrogen, *A.*, 383.
 radiometric microanalysis. V., *A.*, 1105.

- Ehrenhaft, *F.*, existence of sub-electronic charges, *A.*, 341.
- Ehrenhaft, *F.*, and Wasser, *E.*, new evidence of the existence of charges smaller than the electron. (a) The micro-magnet. (b) Law of resistance. (c) Computation of errors of the method, *A.*, 213.
- Ehrenreich, *A.*, preparation of skins of fish, in particular those of sharks, for tanning, (P.), *B.*, 133.
- preparatory treatment of skins of fish, in particular the plagiostomi, (P.), *B.*, 133.
- production of glue in flake or powder form, (P.), *B.*, 342.
- treatment of the skins of sharks and other fish of the same kind, (P.), *B.*, 379.
- obtaining textile fibres of high quality from the skins of fish, e.g., *Chondropterygii selachii*, (P.), *B.*, 668.
- obtaining an alimentary extract from fish, (P.), *B.*, 690.
- preparation of a foodstuff for feeding animals, (P.), *B.*, 872.
- Ehrhardt, *R.*, [mechanical] developments in the potash industry, *B.*, 481.
- Ehrhart, *G.* See Bockmühl, *M.*
- Ehrismann, *O.*, and Joachimoglu, *G.*, micro-chemical detection in urine of some derivatives of barbituric acid, *A.*, 1400.
- Ehrlich, *F.*, and Bender, *I.*, alleged formation of fumaric acid from pyruvic acid by *Rhizopus nigricans*, *A.*, 95, 804.
- Ehrlich, *G.* See Lieben, *F.*
- Eibes, *B.* See Scholz, *V.*
- Eibner, *A.*, negative catalysis as a means of improving the drying of oils, *B.*, 237.
- Auer's conception of the drying of oils, *B.*, 491.
- Eibner, *A.*, and Brosel, *F.*, possibility of different applications of linseed oil conditioned by geographical origin; quantitative analysis and paint technology of a Calcutta oil, *B.*, 761.
- Eibner, *A.*, and Greth, *A.*, theory of oil bleaching; drying of oils by gas-coagulation, *B.*, 340.
- occurrence of disperse phases in drying oils, *B.*, 530.
- Eibner, *A.*, and Held, *R.*, limited splitting of natural drying oils and the so-called non-drying linseed oil, *B.*, 375.
- Eibner, *A.*, and Rossmann, *E.*, tung oil. III. Constitution of elaeostearic acid, *B.*, 825.
- tung oil. IV. Wood oils as crystalloids; "autoxypolymerisation" during drying of wood oils, *B.*, 934.
- tung oil. V. Preliminary cracking and wrinkling of drying wood oil [films], *B.*, 934.
- Eibner, *A.*, and Schild, *E.*, analysis and technology of evening primrose oil, *B.*, 416.
- Eibner, *A.*, Widenmayer, *L.*, and Schild, *E.*, significance in paint technology of isomerism among higher unsaturated fatty acids and glycerides, *B.*, 679.
- Eichelbaum, *G.*, and Altenburg, *J.*, treatment of animal glands, etc., to increase the activity of the hormones, (P.), *B.*, 874.
- Eichelberger, *L.*, and McCluskey, *K. L.*, tuberculosis. I. Plasma proteins, cholesterol, and corpuscle volume, *A.*, 322.
- Eichenberg, *G.*, and Oberhoffer, *P.*, theory of the blast furnace, *B.*, 750.
- Eichner, *C.*, decomposition of the vanadyl sulphates at high temperatures, *A.*, 34.
- Eichweide, *H.* See I. G. Farbenind. A.-G., and Wagner, *Hermann.*
- Eidelson, *B. M.*, electron theory of surface energy at the boundary of two amorphous media, *A.*, 583.
- Eineeke, *E.* See Fischbeck, *K.*
- Eineeke, *F.* See Brünig, *H.*
- Eisiedler Brauhaus, and Haehn, *H.*, isolation of nucleic acids from yeast, (P.), *B.*, 872.
- Eisele, *J.* See I. G. Farbenind. A.-G.
- Eisen- & Stahlwerk Hoersch Akt.-Ges., recovery of carbon dioxide from gas mixtures, (P.), *B.*, 51.
- Eisenberg, *K. B.* See Hahn, *M.*
- Eisenbrand, *J.* See Halhan, *H. von.*
- Eisenhut, *O.*, and Kaupp, *E.*, X-ray examination of iron catalysts for the ammonia synthesis, *A.*, 850.
- Eisenschütz, *E.* See Ebert, *L.*
- Eisenschmidt, *W.* See Heller, *G.*
- Eisfeld, *K.* See Schneider, *W.*
- Eisleb, *O.* See I. G. Farbenind. A.-G.
- Eisler, *B.* See Schittenhelm, *A.*
- Eisler, *M.*, and Portheim, *L.*, [formation of oxygen from carbon dioxide by protein-chlorophyll solutions], *A.*, 333.
- Eisler & Szold. See Bauer, *Emil.*
- Eismayer, *G.*, and Quinke, *H.*, metabolism of hearts of cold-blooded animals; dextrose utilisation with varying amounts of work, *A.*, 1397.
- Eisner, *I.* See Gebauer-Fülnegg, *E.*
- Eissenlöffel, *F.*, production of glass resistant to cracking, (P.), *B.*, 92.
- Eissner, *W.* See Hein, *F.*
- Eistert, *B.* See Arndt, *F.*
- Eitel, *H.*, detection of uranium and localisation of uranium in the animal organism after uranium poisoning, *A.*, 1399.
- Eitel, *W.*, constitution of silicates, *A.*, 821.
- Eitel, *W.*, and Lange, *B.*, dissolution of metals in molten salts, *A.*, 700.
- Ekeley, *J. B.*, and Klemme, *M. S.*, nitration of piperonal, *A.*, 1375.
- Ekeley, *J. B.*, and O'Kelly, *A. A.*, dihydroxy- and dichloro-ketohexahydrotriazines, *A.*, 1262.
- Ekhard, *W.* See Parow, *E.*
- Ekkert, *E.*, colour reactions of carbohydrates, *A.*, 1220.
- Ekkert, *L.*, morphine reaction of Pellagris and Vulpis, *A.*, 314.
- colour reactions of phenacetin, *A.*, 408.
- colour reactions of cholesterol, *A.*, 410.
- colour reactions of ethyl alcohol, *A.*, 504.
- colour reactions of morphine, *A.*, 533.
- colour reactions of some alcohols, *A.*, 733.
- colour reactions of ergosterol as distinct from those of cholesterol, *A.*, 1000.
- colour reactions of mannitol, *A.*, 1114.
- colour reactions of atropine and some related compounds, *A.*, 1145.
- reactions of atophan and novatophan, *B.*, 139.
- reactions of novocaine and its distinction from cocaine, alypin, holocaine, and stovaine, *B.*, 836.
- Ekwall, *P.*, surface activity of sodium salts of high-molecular fatty acids, *A.*, 946.
- conductometric titration of sodium salts of fatty acids of high mol. wt., *A.*, 1115.
- Elam, *C. F.*, tensile tests on alloy crystals. IV. Copper alloy containing 5% Al, *B.*, 19.
- Elben, *E.* See Fischbeck, *K.*
- Elblinger, *H.*, and Funk, *C.*, pepsin, *A.*, 202.
- Elbs, *K.*, and Schaaf, *O. H.*, azopicroic acid [2:4:6:2':4':6':hexanitro-5:5'-dihydroxyazobenzene], *A.*, 1368.
- Elden, *O. A.* See Robscheit-Robbins, *F. S.*
- Elder, *A. L.* See Rees, *O. W.*
- Elderfield, *R. C.* See Davis, *T. L.*
- Eldridge, *J. A.*, experimental test of Maxwell's distribution law, *A.*, 108.
- critical potentials of the spark lines of mercury, *A.*, 1297.
- Electric Railway Improvement Co. See Cadwell, *C. A.*
- Electric Refractories Corporation. See Diamond, *G. S.*
- Electrical Engineers Equipment Co. See Jacobs, *E. H.*
- Electroflo Meters Co., Ltd. See Sandison, *A. G. S.*
- Electrolux, Ltd., Platen, *B. C. von.*, and Munters, *C. G.*, absorptio refrigerating apparatus, (P.), *B.*, 3.
- Electrolux, Ltd., and Platen-Munters Refrigerating System Aktiebolag, evaporators for refrigerating machines, (P.), *B.*, 554.
- absorption refrigerating apparatus, (P.), *B.*, 774, 840.
- Electrolytic Zinc Co. of Australasia, Ltd. See Williams, *R. T. D.*
- Electro-Metallurgical Co., wrought articles of iron-chromium-nickel alloy, (P.), *B.*, 862.
- Electro-Metallurgical Co. See also Becket, *F. M.*, Corson, *M. G.*, Feild, *A. L.*, and Read, *W. C.*
- Electro Refractories Corporation. See Hauman, *E. L.*
- Elek, *A.*, micro-phosphorus determination, *A.*, 660.
- Elek, *L.*, and Roth, *E.*, water and fat metabolism. I., *A.*, 918.
- Elektrische Gasreinigung Ges.m.b.H. See Rohmann, *H.*
- Elektrizitäts Akt.-Ges. vorm. Schuckert & Co., electrolytic production of hydrogen and oxygen, (P.), *B.*, 816.
- Elektrizitätswerk Lanza, production of ammonium nitrate, (P.), *B.*, 815.
- Elektrizitätswerk Lanza, and Luscher, *E.*, manufacture of croton aldehyde, (P.), *B.*, 515.
- production of ammonium nitrate free from nitrite, (P.), *B.*, 568.
- Elektro-Chrom-Ges.m.b.H., regeneration of the metal content of electrolytic [chromium] baths, (P.), *B.*, 612.
- chromium plating bath, (P.), *B.*, 791.
- Elektro-Osmose Aktien-Gesellschaft (Graf Schwerin Ges.), apparatus for the treatment of materials by froth flotation, (P.), *B.*, 40.
- purification of sugar solution, (P.), *B.*, 103.
- Elektroschmelze G.m.b.H., preparation of cement, (P.), *B.*, 606.
- Eley, *C. V. A.*, purification of furnace gases, (P.), *B.*, 353.
- furnace, (P.), *B.*, 506.

- Eley, *H. J.* See Railing, *A. H.*
 Elgasine, *S.* See Tschitschibabin, *A. F.*
 Elger, *F.*, occurrence of harmine in a South American liane (yagé), *A.*, 311.
 Elion, *H.*, rôle of phosphorus in yeast metabolism and alcoholic fermentation, *B.*, 541.
 Elion, *L.*, acetylmethylcarbinol formation in the alcoholic fermentation of sugar, *A.*, 446.
 formation of hydrogen sulphide by the natural reduction of sulphates, *B.*, 89.
 improvements in the fermentation of bread produced by [the addition of] yeast nutrients, *B.*, 282.
 Eliseev, *A. G.*, separation of pure radium salts from isomorphous mixtures with barium salts, *A.*, 31.
 Ellburg, *J.* See Lundin, *H.*
 Ellender, *H.*, nutrient action of iodine in Chile sodium nitrate [dressings for sugar beet], *B.*, 795.
 Ellenberger, *H. B.* See Newlander, *J. A.*
 Ellenberger, *J.*, and British Glues & Chemicals, Ltd., manufacture of artificial horn, (P.), *B.*, 134*.
 Ellerington, *W. H.*, reclamation of used crank-case oil, (P.), *B.*, 292.
 Ellestad, *R. B.*, and Gray, *F. A.*, crystallography of double nitrates of neodymium and praseodymium, *A.*, 109.
 Ellett, *A.*, impact polarisation and spinning electron, *A.*, 1303.
 Ellett, *A.*, and MacNair, *W. A.*, hyperfine structure and polarisation of 1^2S_0 — 2^3P_1 of mercury in resonance radiation, *A.*, 338.
 Ellett, *A.*, and Olson, *H. F.*, reflexion of atoms by a crystal, *A.*, 566.
 Elley, *H. W.*, and Du Pont de Nemours & Co., *E. I.*, production of vulcanised rubber, (P.), *B.*, 165.
 Elley, *H. W.* See also Du Pont de Nemours & Co., *E. I.*
 Ellinger, *K. G.* See Kindler, *K.*
 Ellingworth, *S.* See Browning, *C. H.*
 Elliot, *W. R.*, hydrogen in electrolytic zinc, *B.*, 574.
 Elliott, *A.*, recovering copper from its ores, (P.), *B.*, 789.
 Elliott, *A.* See also Taylor, *W.*
 Elliott, *G. A.*, activation of hydrogen by electric discharge, *A.*, 685.
 Elliott, *K. A. C.* See Mills, *W. H.*
 Elliott, *M.*, friction coefficient for gas flow through small glass tubes, *A.*, 1208.
 Ellis, *B. A.*, Fox, *J. J.*, and Hirst, *J. F.*, composition of zinc chrome, *B.*, 613.
 Ellis, *C.*, oil hardening with nickel and copper formates, (P.), *B.*, 130.
 coating and impregnating medium, (P.), *B.*, 341.
 Ellis, *C.* See also Blyth, *J. F.*
 Ellis, *C. D.*, and Aston, *G. H.*, dependence of the photographic action of β -rays on their velocity, *A.*, 932.
 Ellis, *C. D.*, and Wooster, *W. A.*, average energy of disintegration of radium-*E.*, *A.*, 103.
 Ellis, *G. H.*, and Celanese Corporation of America, treatment of fabrics [containing cellulose esters or ethers], (P.), *B.*, 854*.
 Ellis, *G. H.*, Goldthorpe, *W. O.*, and Celanese Corporation of America, dyeing, printing, or stencilling of acetyl cellulose or products made therefrom, (P.), *B.*, 926*.
 Ellis, *G. H.*, Olpin, *H. C.*, Miller, *W. B.*, and Celanese Corporation of America, treatment of cellulose derivatives, (P.), *B.*, 745*.
 Ellis, *G. H.* See also British Celanese, Ltd.
 Ellis, *H. A.*, and British Drug Houses, Ltd., apparatus for comparing the colour of liquids by reflected and transmitted light, (P.), *B.*, 391*.
 Ellis, *J. C. B.*, and Morrison, *C. G. T.*, ammoniacal nitrogen of peats and humus soils. II, *B.*, 380.
 Ellis, *J. V.*, apparatus for treatment of steel ingots, (P.), *B.*, 198*.
 Ellis, *J. W.*, infra-red absorption by the N-H linking. II. Aryl-, alkyl-, and aryl-alkyl-amines, *A.*, 458.
 infra-red adsorption by the S-H linking, *A.*, 1071.
 Ellis, *M. M.*, guanidine determinations on some invertebrates by a colorimetric phosphotungstic acid method, *A.*, 541.
 guanidine. II. Distribution of guanidines in acute guanidine and parathyropriva tetanics. III. Water content of certain tissues during acute guanidine and parathyropriva tetanics. IV. Changes in guanidine action and in parathyropriva tetany produced by dextrose, *A.*, 1052.
 Ellis, *O. C. de C.*, and Wheeler, *R. V.*, explosions in closed vessels; correlation of pressure development with flame movement, *B.*, 392.
 Ellis, *R. H.* See Rose, *W. C.*
 Ellis, *W.*, manufacture of cattle foodstuffs, (P.), *B.*, 872.
 Ellis-Foster Co. See Lougvooy, *B. N.*
 Ellison, *R. W.*, dissolution of fused aluminous materials, *B.*, 53.
 Ellison, *T. H.* See Barnett, *E. de B.*
 Ellsworth, *F. C.* See Earl, *J. C.*
 Ellsworth, *H. V.*, constant-volume pyknometer, *A.*, 610.
 Maberly (Ont.) euxenite, *A.*, 1350.
 lyndochito, *A.*, 1350.
 Elman, *R.*, Drury, *D. R.*, and McMaster, *P. D.*, relative reactions within living mammalian tissues. X. Litmus constituents as vital stains, *A.*, 1271.
 Elmen, *G. W.*, and Western Electric Co., Inc., magnetic core, (P.), *B.*, 490.
 magnetic material [copper-nickel alloy], (P.), *B.*, 760.
 Elmen, *G. W.* See also Standard Telephones and Cables, Ltd., and Western Electric Co., Inc.
 Elöd, *E.* [with *E. Pieper*], mordanting and dyeing. VII, *B.*, 706.
 Elöd, *E.* [with *E. Pieper* and *E. Silva*], mordanting and dyeing. VI, *B.*, 706.
 Elöd, *E.*, and Koepf & Co., *R.*, manufacture of sodium formate-formic acid compounds, (P.), *B.*, 46*.
 weighting of silk, (P.), *B.*, 601*.
 Elöd, *E.* See also Askenasy, *P.*
 Elrod, *H. E.*, sewage purifying device, (P.), *B.*, 770.
 Elsaesser, *E.*, Hartmann, *A.*, and American Bemberg Corporation, manufacture of artificial silk, (P.), *B.*, 48.
 Elsasser, *W.*, theory of collision processes in hydrogen, *A.*, 344.
 Elsbach, *E. B.* See Waterman, *H. I.*
 Elsdon, *G. D.*, composition of human milk, *A.*, 319.
 Elsdon, *G. D.*, and Stubbs, *J. R.*, refraction of milks with less than 8.5% of solids-not-fat, *B.*, 346.
 Elser, *E.*, examination and evaluation of beeswax, *B.*, 417.
 determination of the inorganic constituents of honey, *B.*, 639.
 Elsey, *H. M.*, arsine from fused glass, *A.*, 258.
 Elsmore, *E. C.*, Holford, *H. J.*, and Bishop, *A.*, centrifugal apparatus for the treatment of sludge, (P.), *B.*, 352.
 Elsner, *E.*, [Liebermann-]Storch-Morawski reaction for rosin, *B.*, 614.
 Elsner, *H.* See Schlubach, *H. H.*
 Eltete, *G.*, detection of carbon dioxide, *B.*, 709.
 Elton, *R. A.*, [rotary] filter, (P.), *B.*, 431.
 Elvehjem, *C. A.* See Hart, *E. B.*, and Peterson, *W. H.*
 Elvey, *C. T.*, density necessary to produce the nebular spectrum, *A.*, 98.
 "nebular" spectrum in new stars, *A.*, 337.
 Elvins, *O. C.*, hydrocarbon synthesis from carbon monoxide and hydrogen, *B.*, 178.
 Elvins, *O. C.* See also Nash, *A. W.*
 Embden, *G.*, active substances of striped muscle and the chemistry of muscular contraction, *A.*, 197.
 Embden, *G.*, and Habs, *H.*, changes in muscle following repeated faradic stimulation. I, *A.*, 545.
 Embden, *G.*, and Lehnartz, *E.*, lactic acid formation in muscle contraction. II, *A.*, 1049, 1398.
 Emeléus, *H. J.*, phosphorescent combustion of sulphur, *A.*, 972.
 Emeléus, *H. J.*, and Purcell, *R. H.*, origin of the spectrum of the glow of phosphorus, *A.*, 459.
 Emeléus, *K. B.*, and Carmichael, (*Miss*) *N. M.*, primary dark space of a Geissler discharge, *A.*, 677.
 Emelianovna, *N. V.*, and Heyrovský, *J.*, maxima on current-voltage curves; electrolysis of nickel salt solutions with the mercury dropping cathode, *A.*, 371.
 maxima on current-voltage curves. I, *A.*, 596*.
 Emert, *O.* See Mittasch, *A.*
 Emery, *W.*, peeling of "slip-banded" ware, *B.*, 570.
 refractories for the pottery industry. II. Saggars, *B.*, 816.
 Emery, *W. O.*, synthetic drug analysis. IX. Determination of acetylsalicylic acid (aspirin), phenylethynonine acid (cinchophen), and caffeine in admixture, *B.*, 284.
 Emmel, *K.*, and Walbert, *H.*, production of iron castings with a low carbon content, (P.), *B.*, 821*.
 Emmer, *H.* See I. G. Farbenind. A.-G.
 Emmerling, natural separation of salts from rivers charged with [magnesia-containing] effluent from potash works, *B.*, 504.
 Emmons, *R. C.*, mineral separation in a finely-divided state, *B.*, 931.
 Empey, *L. W.* See Hanzlik, *P. J.*
 Empson, *A. W.*, mixing and emulsifying apparatus, (P.), *B.*, 175.
 Endell, *K.*, and Steger, *W.*, measurements of the expansion of refractory bricks at 1600°, *B.*, 483.

- Enderlen, E., Thannhauser, S. J., and Distl, A., origin of bile acids. V. Is there a relation between breakdown of fatty acids and formation of bile acids? A., 1398.
- Enderlen, E., Thannhauser, S. J., and Jenke, M., origin of bile acids. II. Cholesterol-bile-acid balance in a dog with complete bile fistula. III. Steric configuration of sterols and their influence on the formation of bile acids, A., 789.
- origin of bile acids. IV. Researches in dogs with complete bile fistula and reversed Eck fistula, A., 1398.
- Enderlin, L. See Moureu, C.
- Enders, A., Billen, R., and Carbonisation Industrielle (Société Anonyme), transportable apparatus for the manufacture of charcoal, (P.), B., 114.
- Endô, H., corrosion of iron, B., 929.
- Endres, G., and Kubowitz, F., metabolism of blood platelets, A., 191.
- Endres, H. A., and Goodyear Tire & Rubber Co., compounding of rubber, (P.), B., 101.
- Enge, L., economic production of strong mechanical [and chemical] wood pulp of good colour, B., 120.
- Engeland, R., dipole moment of symmetrical compounds and *cis-trans*-isomerism at "single" linkings, A., 1076.
- Engelhard, Inc., C., and Krneger, R. H., gas-testing apparatus, (P.), B., 416.
- Engelhardt, A., use of active charcoal in the gas industry, B., 392.
- Engelhardt, A. See also I. G. Farbenind. A.-G.
- Engelhardt, W., relation of some colloids to iodine and possible application to the titration of colloids, A., 705.
- Engelhardt, W. A., and Braunstein, A. E., carbohydrate degradation and phosphoric acid in blood, A., 1269.
- Engelhardt, W. A., and Lyubimov-Kremleva, N., application of the hypobromite method to the determination of minute quantities of ammonia and especially of the non-protein nitrogen of the blood, A., 539.
- Engelhardt, W. A., and Parshin, A. N., relation between hormonal and enzymic phenomena in the mechanism of regulation of the carbohydrate metabolism, A., 1287.
- Engelhardt, W. A., and Wachner, R., formation of enzymes in the developing egg, A., 540.
- Engelhardt, W. E., antiseptic action of phenol and *p*-chlorophenol in solvents with different dielectric constants, A., 204.
- Engelke, E. F. See Komlos, J.
- Engelmann, B., accumulation of arsenic in the brain following administration of neosalvarsan, arsenious and arsenic acids, A., 1053.
- Engels, O. See Kling, M.
- Engle, E. W., and Fansteel Products Co., Inc., non-aqueous electrolytic condenser, (P.), B., 577.
- rectifier electrolyte, (P.), B., 760.
- rectifier electrode, (P.), B., 900.
- Engledow, F. L., aid in the determination of flour strength, B., 282.
- English, F. L. See Calcott, W. S.
- English, J. H. See Prince, G. W.
- English, S., Howes, H. W., Turner, W. E. S., and Winks, F., influence of iron oxide on the properties of glass, B., 404.
- English, S., and Turner, W. E. S., properties of soda-baryta-silica glasses and a comparison with the corresponding soda-lime- and soda-lead oxide-silica glasses, B., 192.
- relationship between chemical composition and thermal expansion of glasses, B., 262.
- casing of colourless by cobalt blue glass. II. Setting rate, B., 404.
- Englund, B., compounds from α -glycols with arsenic acid and arsenoacetic acid, A., 1364.
- Engst, T., tracks and radiation of electrons emitted by hydrogen, A., 213.
- Enna, F. G. A., connexion between analyses and properties of sulphonated oils, B., 578.
- Enock & Co., Ltd., A. G., and Enock, E. C., apparatus for treating [pasteurising] milk, etc., (P.), B., 34.
- Enock, E. C. See Enock & Co., Ltd., A. G.
- Ensleme, J., and Ensleme, (Mme.) J., form of organic phosphorus in neoplasms, A., 196.
- Ensleme, J. See also Florence, G.
- Ensleme, (Mme.) J. See Ensleme, J.
- Enskog, D., the Bohr magneton and radioactivity, A., 343.
- Ensslin, H. See Bergmann, M.
- Enz, W., improvement of cloth by the galvanic deposition of metals upon it, (P.), B., 227.
- Épailly, T. See Baugé, G.
- Epelbaum, S. See Palladin, A.
- Ephraim, F., reflexion spectrum of praseodymium in covalent compounds, A., 218.
- complex compounds, A., 690.
- Ephraim, F., and Bloch, R., spectrum of praseodymium salts of oxygenated acids, A., 217.
- displacement of spectra during the formation of compounds (observations with compounds of praseodymium), A., 217.
- Ephraim, F., and Ritter, W., action of ammonia on alkali chromichlorides and on chromiammines which contain more than six molecules of ammonia, A., 1201.
- Ephraim, F., and Schärer, A., additive compounds of hydrogen halides and salts of heavy metals. III., A., 1343.
- Epperson, (Miss) A. W., pyrophosphate method for the determination of magnesium and [of] phosphoric anhydride, A., 386.
- Eppey, M., improvement in the technique of setting up standard cells, B., 528.
- cathode equilibrium in the cadmium standard cell, B., 528.
- Epstein, A. K., manufacture of leavened bread, (P.), B., 242.
- production of egg products, (P.), B., 943.
- Epstein, C. See Fodor, A.
- Epstein, F., agitators or mixers, (P.), B., 352.
- Epstein, G. See Scherlin, S. M.
- Epstein, H. See Späth, E.
- Erba Akteing-Gesellschaft, manufacture of highly sulphonated oils of vegetable or animal origin, (P.), B., 792.
- manufacture of Turkey-red oils, etc., (P.), B., 825.
- manufacture of highly sulphonated oils, fats, fatty acids, and waxes, (P.), B., 825.
- Erben, F. E., chloroarsinoquinine. III., A., 1386.
- Erber, B., [filling for] electric incandescence lamps with an incandescent body of tantalum carbide, (P.), B., 717.
- Erdal, A., analysis of mixed crystals and alloys, A., 108.
- Erdély, A., and Almási, L., treatment of benzene obtained by cracking processes and by low-temperature carbonisation [of lignite] with sulphuric acid and liquid sulphur dioxide, B., 78.
- Erdély, A., and Nash, A. W., catalysts used in the synthesis of higher hydrocarbons from water-gas, B., 775.
- Erdely-Grúz, T., transport numbers of hydrochloric and picric acids, A., 134.
- Erdman, L. W., and Humfeld, H., nitrification and its relation to crop production on Carrington loam under different treatments, B., 907.
- Erdmann, G., and Gehe & Co. Akt.-Ges., manufacture of an ergot preparation, (P.), B., 140.
- Erdtman, H., glycerophosphate fission by means of kidney phosphatase and its activation, A., 671.
- kidney phosphatase and its activation. II. and III., A., 1157.
- Ereký, K., manufacture and preservation of green fodder pulp or other green plant pulp and of dry products made therefrom, (P.), B., 34.
- Erényi, L., electric apparatus for preventing and removing deposits in water-evaporating vessels, (P.), B., 770.
- Ergang, A., net-cathode for electrolytic cells, (P.), B., 415.
- Erhard, C., carbonising plant and generator for the production of low-temperature tar, (P.), B., 805.
- Erhardt, W. See Schittenhelm, A.
- Eriekson, A. N., and Union Carbide Co., production of a solution of cyanamide from calcium cyanamide, (P.), B., 568.
- Erickson, W. R. See Lowry, H. H.
- Erickson, J. W., machine for crushing ore, stone, etc., (P.), B., 657.
- Eriksson, E. See Euler, H. von.
- Eriksson, E. G. See Aktiebolaget Svenska Maskinverken.
- Eriksson, H., ore- or like mixing machines, (P.), B., 372.
- Eriksson, J. A., manufacture of a porous building material, (P.), B., 607.
- Eriksson, S., precision measurements of the K-series of iron, cobalt, nickel, manganese, and chromium, A., 817.
- Erk, S., viscosity of mercury, A., 578.
- viscosity measurements and viscosimeters, B., 589.
- Erkens, P., washing apparatus for use with parchmentising and like machines, (P.), B., 296.
- Erlbach, H. See Ohle, H.
- Erlenbach, E., and Sinclair Refining Co., catalytic cracking of heavy hydrocarbons, mineral oils, oil residue tars, etc., (P.), B., 594.
- Erlenmeyer, H., crystal crusts, A., 12.
- dependence of electrochemical processes on pressure, A., 489.
- Ermen, W. F. A., new reagent for detection of oxycellulose, B., 550*.

- Ermen, W. F. A. See also British Dyestuffs Corporation, Ltd.
 Ernst, Z. See Csépai, K.
 Errera, J., colloidal state and cohesion at the time of solidification, A., 705.
 electric moment of *p*-azoxyanisole, A., 936.
 relation between dipole-moment and constitution, A., 1308.
 molecular association; relation between the vapour pressures of binary liquid mixtures and the polarity of the molecules of the constituents, A., 1316.
 Erslev, E. M., manufacture of thick gravies, (P.), B., 172.
 Erslev, K., preparation of fats of a plastic and lithe consistency, (P.), B., 202*.
 Erste Böhmische Kunstseidefabr. Akt.-Ges., manufacture of hollow artificial silk threads, (P.), B., 188*.
 Ervin, D. M., diabetes; mathematical derivation of the blood-dextrose curve, A., 1273.
 Erygin, L. S. See Smirnov, A. I.
 Erz- & Kohle-Flotation Ges.m.b.H., method and apparatus for classifying materials, (P.), B., 772.
 Erz- & Kohle-Flotation Ges.m.b.H. See also Schäfer, W.
 Erzröstung Ges.m.b.H., and Balz, G., mechanical [oro-roasting] kilns, (P.), B., 451.
 Escaich, A., and Worms, P. J., dyeing process [for fibres], (P.), B., 296*.
 Esch, W., rubber mixings, B., 61.
 influence of "mineral rubber" on the strength of vulcanised rubber, B., 276.
 aldol- α -naphthylamine, B., 277.
 prevention of scorching during the mixing of rubber "compounds," B., 377.
 specifications as to composition and selling conditions for rubber goods, B., 457.
 fineness and reinforcing power of rubber fillers, B., 532.
 rubber mixtures containing carbon black, B., 868.
 evaluation factors for rubber vulcanisates, B., 903.
 Eschbach, W., detonator tube, (P.), B., 141.
 ignition of explosives, (P.), B., 466.
 Escher, H. H., crystalline carotin-like substances from meadow ranunculus and rose "hips," A., 1016.
 Eschweiler, W. See Biltz, W.
 Escolme, A. I., and Lewis, W. C. M., hydrolysis of the peptide (-CO-NH-) linking, A., 26.
 Escourrou, R., catalytic hydrogenation under reduced pressure. I. Reduction of the methylheptenols, A., 1353.
 determination of constitution by means of ozone, A., 1357.
 Esnault-Pelterie, R., testing the physical properties of materials, (P.), B., 553.
 Esp, E. See Vegard, L.
 Espeso, C., detection of apple juice in preserves of other fruits, B., 314.
 determination of malic and citric acids in fruit juice and jam, B., 544.
 Espurz, D., relation between the variations of pressure and density of the air, A., 267.
 Esser, H., and Oberhoffer, P., binary systems silicon-iron, iron-phosphorus, iron-manganese, B., 55.
 Esser, H. See also Oberhoffer, P.
 Essin, O., electrolytic formation of dithionate, A., 489.
 Estermann, J., electrical dipole moment of organic molecules, A., 1309.
 electrical dipole moments of organic molecules by the molecular ray method, A., 1309.
 Estermann, L. See Corten, M. H.
 Estes, A. M., and Burge, W. E., effect of varying amounts of oxygen, anoxæmia, and anæsthetics on the sugar metabolism of animal cells, A., 1278.
 Estes, A. M. See also Burge, W. E.
 Estorff, W. See Siemens-Schuckertwerke G.m.b.H.
 Établissements F. Labesse, furnace or combustion chamber walls, (P.), B., 288.
 construction of brickwork walls exposed to high temperatures, (P.), B., 554.
 Établissements Lambiotte Frères, decolorisation of acetone oils and wood spirit distillates, (P.), B., 594.
 Établissements Lumière & Jougla Réunis. See Soc. Anon. Union Photographique Industrielle.
 Établissements Petitdidier (Ancienne Maison Jolly-Belin), colour printing on fabrics [containing cellulose acetate], (P.), B., 50.
 colour printing on fabrics having a foundation of silk or wool, (P.), B., 50.
 Établissements Petitdidier (Ancienne Maison Jolly-Belin), colour printing on [cellulose acetate silk] fabrics having a foundation of silk or wool, (P.), B., 260.
 Établissements Pouleno Frères, laboratory apparatus for the production of absolute alcohol, (P.), B., 183.
 manufacture of readily-soluble organic salts of C:C-[5:5]-dialkyl- and arylalkyl-barbituric acids, (P.), B., 465.
 Établissements Poulene Frères, Fournneau, E., and Tréfoüel, J., manufacture of N-acyl derivatives of 3-amino-4-hydroxybenzene-1-arsenoxide and dichloroarsines, (P.), B., 874.
 Établissements Poulenec Frères. See also Fournneau, E.
 Etheridge, A. T., determination of vanadium in steel, B., 714.
 Ethyl Gasoline Corporation. See Edgar, G.
 Etridge, J. J., and Sugden, S., parachor and chemical constitution. IX. Boron compounds, A., 577.
 Ets, H. N. See Williamson, C. S.
 Ettenreich, R. See Schrack, E.
 Ettisch, G., Bradfield, R., and Ewig, W., electrodialysis of serum, A., 833.
 Ettisch, G., and Ewig, W., electrodialysis of serum, A., 785.
 Ettisch, G., and Joachimsohn, K., determination of sodium-ion concentration by means of a sodium amalgam electrode, A., 1108.
 Ettisch, G., and Koganei, R., surface tension of aqueous solutions of salts of high mol. wt., A., 582.
 Etzel, G., catalytic activity of titania in the reduction of nitro-compounds, A., 849.
 Etzel, G. See also Brown, O. W.
 Eucken, A., Wiedemann-Franz law. III., A., 825.
 Eucken, A., and Bresler, F., molecular force. I. The change of vapour pressure of a liquid in the presence of compressed gas and its relationship to the van der Waals constant a_{12} , A., 828.
 Eucken, A., and Hauck, F., specific heats at constant pressure and at constant volume of some substances in the solid, liquid, and hypercritical states between 80° and 320° Abs., A., 826.
 Eucken, A., and Kuhn, G., heat conductivity of solid crystalline substances between 0° and -190°, A., 826.
 Eucken, A., and Meyer, L., calorimeter for determination of heats of combustion, B., 589.
 Eucken, A., and Seekamp, H., theory of specific heat c_v of monoatomic liquids at high temperatures, A., 827.
 Eugène, anomalies of annealing after cold-beating of copper and brasses, B., 861.
 Euger, F., precision measurements in the rhodium K-series, A., 451.
 Eugster, A., chlorine content of blood; distribution in hæmopathological, particularly anæmic, conditions, A., 1394.
 Euler, B. von, and Euler, H. von, colorimetric determination of vitamin-A, A., 1405.
 Euler, B. von. See also Euler, H. von.
 Euler, H. von, affinity. III. and IV., A., 1090.
 biological oxido-reductions, A., 1159.
 enzymic nitrogen metabolism, A., 1159.
 fat-soluble growth factors, A., 1161.
 compounds between catalysts and substrates, A., 1336.
 Euler, H. von, and Brunius, E., mutase, A., 671.
 enzymic mutation and enzymic degradation of glycogen-lactic acid, A., 1157.
 purification of nucleosidases, A., 1157.
 positions of adjacent rings in carbocyclic and heterocyclic molecules, A., 1313.
 Euler, H. von, Brunius, E., and Proffe, S., carbohydrate metabolism in dried muscle, A., 1276.
 activator-Z. IV. Specific accelerator of fermentation by fresh yeast, A., 1402.
 Euler, H. von, Euler, B. von, and Rydbom, M., vitamin effects produced by steryl phosphates and by sterols from erythrocytes A., 1406.
 Euler, H. von, and Eriksson, E., enzymes and biocatalysts in relation to adaptation and inheritance. I. Effect of iron-containing media on yeast, A., 1284.
 Euler, H. von, Eriksson, E., and Brunius, E., reactions between sugars and amino-compounds. IV., A., 1118.
 Euler, H. von, and Grabe, E., mutase, A., 1159.
 Euler, H. von, and Johansson, H., rôle of biocatalysts in carbohydrate metabolism of carcinoma, A., 1152.
 biocatalyst content of normal and pathological tissues, A., 1393.
 Euler, H. von, and Kertész, Z. I., peptidases, A., 1054.

- Euler, *H. von*, Lövgren, *T.*, and Rydbom, *M.*, influence of fat-soluble vitamins and factors on total and inorganic phosphoric acid in rats' blood, A., 91.
- Euler, *H. von*, and Myrbäck, *K.*, rôle of hexosemonophosphate in enzymic degradation of sugar, A., 1053.
- co-zymase. XV., A., 1158.
- co-zymase and enzymic carbohydrate metabolism, A., 1159.
- Enler, *H. von*, Myrbäck, *K.*, and Nilsson, *R.*, biological sugar degradation, A., 203.
- Euler, *H. von*, Myrbäck, *K.*, and Runehjelm, *D.*, enzymic production of hexosephosphates, A., 1158.
- Euler, *H. von*, and Nilsson, *R.*, reactions of hexoses in the animal organism, A., 1157.
- Euler, *H. von*, and Nordenfeldt, *E.*, co-zymase in respiring organs of plants, A., 1159.
- Euler, *H. von*, and Ölander, *A.*, theory of intermediate reactions. I., A., 138.
- catalysis of hydrolytic reactions by acids and bases, A., 376.
- hydrolytic scission of succinimide, A., 1326.
- Euler, *H. von*, and Proffe, *S.*, dry [enzyme] preparations from muscle, A., 1157.
- Euler, *H. von*, and Steffenburg, *S.*, co-zymase in respiring organs of plants, A., 803.
- respiration of beans (*Phaseolus multiflorus*) grown on an iron-deficient medium, A., 1161.
- Euler, *H. von*. See also Euler, *B. von*, and Myrbäck, *K.*
- Euler, *U. von*, influence of tetrahydro- β -naphthylamine on tissue oxidation and some of its partial processes, A., 326.
- insulin-like substance of yeast, A., 553.
- Evans, *B. A.* See Whitby, *G. S.*
- Evans, *B. S.*, deposition of metals on copper from cyanide solutions. I. Separation and determination of small amounts of lead, B., 449.
- Evans, *B. S.*, and Clarke, *S. G.*, precipitation method for determination of vanadium, and its application to steel analysis, B., 786.
- Evans, *D. I.*, physiology of apples. VII. The sugars of apples with especial reference to the laevulose-dextrose ratio, A., 558.
- Evans, *E. A.*, and Wakefield & Co., Ltd., *O. O.*, oil composition suitable as a power-transmitting agent in hydraulic brakes for automobiles, etc., (P.), B., 292.
- Evans, *E. C.*, and Bailey, *F. J.*, blast-furnace data and their correlation, B., 405.
- Evans, *E. S.* See Johns, *A. L.*, Jones, *D. O.*, and Jones, *W. M.*
- Evans, *G. M.* See Wendt, *G. L.*
- Evans, *G. S.*, and Mathieson Alkali Works, refining of iron, (P.), B., 57.
- Evans, *G. T. R.*, copper hydrosols of low electrical conductivity, A., 1090.
- Evans, *G. W. B.*, and Evans Ore Reduction Co., treatment of refractory ores containing precious metals, (P.), B., 337.
- Evans, *H.* See British Dyestuffs Corporation, Ltd.
- Evans, *H. M.*, and Burr, *G. O.*, vitamin-B required during lactation, A., 332.
- paralysis in sucklings of mothers deprived of vitamin-E, A., 333.
- vitamin-E. II. Destructive effects of certain fats and fractions thereof on the antisterility vitamin in wheat germ and wheat-germ oil, A., 557.
- differentiation between vitamins-B₁ and -B₂, A., 676.
- Evans, *J.*, and Wallis, *T. E.*, coffee parchment as adulterant of bran and sharps, B., 727.
- Evans, (*Miss*) *J.* See Hahn, (*Miss*) *D. A.*
- Evans, *J. T.*, and Farmer, *E. H.*, properties of conjugated compounds. V. Hydrogenation of certain extended heterogeneous systems, A., 568.
- Evans, *R. D.* See Bisehoff, *F.*
- Evans, *U. R.*, passivity and protective oxide films, A., 375.
- corrosion at discontinuities in metallic protective coatings, B., 751.
- practical problems of corrosion. III. Formation of rust and its consequences. IV. Corrosion of wrought iron in relation to that of steel. V. Corrosion and protection at the contacts of dissimilar metals, B., 300.
- Evans, *William*, preparation for the cure of foot-rot in sheep, and for external application in other animal diseases, (P.), B., 731.
- Evans, *Wilson*, and National Aluminate Corporation, mixing solids with liquids, (P.), B., 878.
- Evans, *W. L.*, and Cornthwaite, *W. R.*, mechanism of carbohydrate oxidation. VII. Action of potassium hydroxide on dihydroxy-acetone, A., 397.
- Evans, *W. L.*, and Hutohman, *J. E.*, mechanism of carbohydrate oxidation. VIII. Action of potassium hydroxide on laevulose, A., 741.
- Evans, *W. L.*, Niehoff, *W. D.*, Strouse, *G. C.*, and Waring, *C. E.*, mechanism of carbohydrate oxidation. IX. Action of copper acetate solutions on dextrose, laevulose, and galactose, A., 1117.
- Evans, *W. L.*, and O'Donnell, *D. C.*, mechanism of carbohydrate oxidation. X. Action of potassium hydroxide on mannose; comparison with that of dextrose and laevulose, A., 1222.
- Evans, *W. P.*, microstructure of New Zealand lignites, B., 3, 179*, 509.
- Evans Ore Reduction Co. See Evans, *G. W. B.*
- Eveleigh, *R. C. L.* See Branscombe, *W. T.*
- Evenson, *O. L.*, and McCutchen, *D. T.*, use of buffers in the determination of colour [in azo-dyes] by means of titanium trichloride, B., 704.
- Everatt, *R. W.* See British Dyestuffs Corporation, Ltd., and Rodd, *E. H.*
- Everatt, *A. B.*, and Hanson, *D.*, influence of nickel on iron-carbon-silicon alloys containing phosphorus, B., 407.
- Everest, *A. E.* See Leitch & Co., Ltd., *J. W.*
- Everett, *M. R.*, and Hart, *M. O.*, determination of sugar in normal urine, A., 1273.
- Everett, *R. H.*, kauri reduction test as applied to flat wall paints, B., 23.
- Evers, *F.*, and Schmidt, *Rolf*, artificial ageing of mineral oils. II., B., 841.
- Evers, *H.*, [physical] properties of artificial silk filaments consisting of mixtures of nitrocellulose and cellulose acetate, B., 47.
- Eversole, *J. F.* See Pearce, *J. N.*
- Eversole, *W. G.* See Pearce, *J. N.*
- Ewald, spectrographs for the analysis of metals, A., 1109.
- Ewan, *T.* See Cassel Cyanide Co., Ltd., and Synthetic Ammonia & Nitrates, Ltd.
- Ewer, *N. T.* See Amyco Corporation.
- Ewig, *K.* See Tamman, *G.*
- Ewig, *W.* See Ettisch, *G.*
- Ewing, *P.* See Williamson, *C. S.*
- Ewing, *S. P.* See Logan, *K. H.*
- Excelsior Feuerlöschgeräte Aktien-Gesellschaft, and Burmeister, *H.*, process and apparatus for extinguishing fires, (P.), B., 288.
- production of fire-extinguishing foam or foam-producing liquids, (P.), B., 840.
- Excelsior Feuerlöschgeräte Aktien-Gesellschaft, Burmeister, *H.*, and Minimax Aktien-Gesellschaft, production of fire-extinguishing foam, (P.), B., 3.
- Excelsior Feuerlöschgeräte Aktien-Gesellschaft, and Treichel, *O.*, production of foam for fire-extinguishing purposes, (P.), B., 321.
- extinguishing fires, (P.), B., 628.
- Excelsior Feuerlöschgeräte Aktien-Gesellschaft. See also Schnabel, *R.*, and Schworetzky, *G.*
- Expanded Metal Co., Ltd. See Smith, *Walter*.
- Ext, *W.* See I. G. Farbenind. A.-G.
- Eymers, (*Miss*) *J. G.* See Ornstein, *L. S.*
- Eynon, *L.* See Lane, *J. H.*
- Eyring, *H.* See Gibson, *G. E.*
- Eyring, *H. E.*, mol. wt. of saturated vapours by the effusion method, A., 1178.

F.

- Faber, *H.* See Jander, *G.*
- Fabre, *J. H.*, and Brémond, *E.*, musts and wines from grapes attacked by *Eudemis*. I. and II., B., 104.
- Fabre, *R.*, and Picon, *M.*, toxicology of bismuth, A., 1280.
- Fabre, *R.*, and Simonnet, *H.*, physiological study of glutathione by liver perfusion, A., 196, 669*.
- physical and biological properties of irradiated sterols, A., 1406.
- Fabre, *R.* See also Binet, *L.*, and Randoim, *L.*
- Fabriek van Chemische Producten. See Jurling, *J. G.*, and Kraus, *E.*
- Fabrique de Soie Artificielle de Tubize Société Anonyme. See Duclaux, *J.*

- Fabriques de Produits Chimiques "Kala" Société Anonyme and Khartschev, N., manufacture of formaldehyde, (P.), B., 223.
- Fabriques de Produits Chimiques Rohner Société Anonyme Pratteln, manufacture of [azo-] dyes [pigments and ice-colours], (P.), B., 183.
- Fabriques de Produits Chimiques de Thann et de Mnlhouse, cyanides and [their manufacture from] cyanamide salts, B., 857.
- Fabris, (Signa.) E., composition of crystals obtained from solutions containing sodium sulphate and iodides. II. and III., A., 602, 1095.
- Fachini, S., and Borella, C., ability of insulating oils to resist oxidising influences, B., 435.
- Faermann, V. See Kostytschev, S.
- Faerber, K. See Dittmann, K. E.
- Fagerberg, S., cathode phosphorescence of erbium in calcium oxide, A., 934.
- Fahrenwald, A. W., determining the densities of liquids and ore pulps, B., 695.
- Failey, C. F. See Randall, M.
- Fair, G. M., and Carlson, C. L., hydrogen-ion control of sludge digestion, B., 109.
- effect of chlorination on the digestion of sewage solids, B., 142.
- Fairbourne, A., and Fawson, H. R., oxidation of nitrophenyl-cyanoacetates. II., A., 755.
- Fairbrother, F., and Wormwell, F., electrokinetic potential between the solid and liquid states of a single substance, A., 1097.
- Fairbrother, J. A. V., action of X-rays on colloidal ceric hydroxide, A., 1091.
- Fairbrother, T. H. See British Dyestuffs Corporation, Ltd.
- Fairhall, L. T., calcium and ultra-violet irradiation; effect on serum-calcium; effect on calcium utilisation on a calcium-poor diet, A., 669.
- report for the distillation of oil shales, (P.), B., 149.
- Fairley, A. S., width of the D absorption lines in sodium vapour, A., 1166.
- Fairley, N. H. See Kellaway, C. H.
- Fajans, K., change of ionic refraction in crystal lattices, A., 7.
- properties of salt-like compounds and atomic structure. II., Influence of deformation of the electron sheaths, A., 1170.
- variation of X-ray absorption spectra in crystal gratings, A., 1294.
- refractometric behaviour and the state in solution of ammonium salts and concentrated acids, A., 1320.
- Fajans, K., Fromherz, H., and Karagunis, G., influence of adsorbed ions on the absorption of light by silver bromide, A., 491.
- Fajans, K., Kohner, H., and Geffcken, W., refractometric evidence relating to the condition of strong electrolytes in concentrated solutions, A., 477.
- Fakhoury, N. See Bangham, D. H.
- Faki, T. See Grignard, V.
- Falck, H. J., and Norsk Hydro-Elektrisk Kvaelfstofakt., separation of compounds [nitrates] of potassium from compounds [nitrates] of aluminium, (P.), B., 403*.
- Falck, H. J. See also Halvorsen, B. F.
- Falck, R., two natural processes of decomposition of the cellulose and lignin of lignified tissue by bacteria, B., 119.
- Falck, R., and Coordt, W., methoxyl content in the degradation of the lignin and cellulose of wood, A., 1362.
- Falcke, V., reactions between ferrous oxide and carbon and between carbon monoxide and iron, B., 713.
- Falcone, A., analysis of edible oils, B., 646.
- Falk, R. See Belkina, L.
- Falkenhagen, H., and Williams, J. W., relaxation time of ionic layers in the irreversible passage of electricity in strong electrolytes, A., 1330.
- Falkenhagen, H. See also Debye, P.
- Falkenhausen, F. von. See Kalb, L.
- Falkenhausen, M. von, Fuchs, H. J., and Schubert, M., proteolytic enzymes of blood-serum. IX. Different behaviour of sera in the stages of metamorphosis of Anura, A., 540.
- Falkenhausen, M. von, and Hirsch-Kauffmann, H., laotacidogen in experimental pancreas diabetes, A., 1395.
- Fallon, J. See Smallwood, A.
- Fallot, M., magnetic susceptibility and the supposed second isoelectric point of gelatin, A., 585.
- Faltis, F., and Troller, A., constitution of isochondondendrine, A., 433.
- Fanselow, J. R. See Kraemer, E. O.
- Fansteel Products Co., Inc. See Balke, C. W., Engle, E. W., and Miller, H. N.
- Fantl, P. See Urbach, E.
- Faragher, W. F., Morrell, J. C., and Comay, S., thermal decomposition of organic sulphur compounds, B., 435.
- Faragher, W. F., Morrell, J. C., and Monroe, G. S., determination of sulphur and sulphur derivatives of hydrocarbons in naphtha solutions and in petroleum distillates, B., 77.
- Faragher, W. F. See also Gruse, W. A., and Kesler, C. C.
- Farbenfabriken vorm. F. Bayer & Co., manufacture of insecticides for spraying plants and pickling seeds, (P.), B., 684.
- Farbenfabriken vorm. F. Bayer & Co. See also Durand & Huguenin Soc. Anon. and I. G. Farbenind. A.-G.
- Farber, C. W. See Breyer, F. G., and New Jersey Zinc Co.
- Farbwerke vorm. Meister, Lucius, & Brünig. See I. G. Farbenind. A.-G.
- Fargher, R. G., and Probert, M. E., examination of the early stages of the hydrolysis of starch by dilute acids, B., 64.
- Farine, G. See Kartaschov, V.
- Farish, W. A., and Buffalo Refractory Corporation, manufacture of refractory products, (P.), B., 299.
- Farkas, G., and Tangl, H., action of ultra-violet rays on the migration of pigment from the blood of normal and splenectomised dogs, A., 1400.
- Farkas, L. See Bonhoeffer, K. F.
- Farmer, E. H., production of coloured photographic prints, (P.), B., 549.
- Farmer, E. H., Laroia, B. D., Switz, T. M., and Thorpe, J. F., properties of conjugated compounds. III. Bearing of hexatriene chemistry on the reactive form of conjugated hydrocarbons, A., 151.
- Farmer, E. H., Lawrence, C. D., and Thorpe, J. F., conjugated compounds. IV. Formation of isomeric additive dibromides from butadiene, A., 504.
- Farmer, E. H. See also Evans, J. T.
- Farnell, R. G. W., extraction of sugar from beet, (P.), B., 685, 832.
- Farnell, R. G. W. See also Ogilvie, J. P.
- Farnham, R. V., treatment of carbonaceous material, (P.), B., 219.
- Farnsworth, H. E., energy distribution of secondary electrons from copper, iron, nickel, and silver, A., 453.
- secondary electron current as a function of crystal structure, A., 453.
- large angle scattering of low-velocity electrons from copper, iron, nickel, and silver, A., 453.
- Farr, C. C., and Macleod, D. B., physical properties of gas-freed sulphur, A., 578.
- Farr, C. C., and Rogers, M. N., helium and the genesis of petroleum, A., 730.
- Farr, H. V. See Collins, W. D.
- Farr, W. H. See Hanzlik, P. J.
- Farrell, J. L. See Johnston, L. M.
- Farrell, W. J., jun., calcium carbide as an agent for removing sulphur and phosphorus from iron and steel, B., 55.
- Farrow, E. S., jun., and Eastman Kodak Co., manufacture of cellulose acetate, (P.), B., 810.
- Farrow, F. D., Lowe, G. M., and Neale, S. M., flow of starch pastes at high and low rates of shear, A., 585.
- Farrow, F. D. See also Cunliffe, P. W.
- Fasce, E. V., improved lighting source for m.p. apparatus, A., 266.
- Fasce, E. V. See also Cooper, C. M.
- Fasig, E. W., and Purdy, J. M., pigments for iron and steel primers, B., 23.
- Fastighetsaktiebolaget Öresund, reduction of zinc ores, (P.), B., 932.
- Fasting, J. S., feeding of muddy material into rotary [cement] kilns, etc., (P.), B., 525.
- Fasting, J. S., and Smith & Co., F. L., rotary [cement] kiln and cooler, (P.), B., 93.
- Faultless Rubber Co. See Miller, T. W.
- Faurholt, C. See Bjerrum, N.
- Fausser, E. See Zehner, J.
- Fausser, G., production of concentrated nitric acid by oxidation of ammonia under pressure, B., 601.
- apparatus for production of synthetic ammonia, (P.), B., 858*.
- Faust, O., degree of swelling of hydrated cellulose [artificial silk], B., 636.
- Faust, O., Karrer, P., and Schubert, P., polysaccharides. XXXVIII. Behaviour of viscose silks towards snail cellulase, A., 276.

- Fauth, P. L., distillation of solvents from solutions and deodorisation of oils, fats, etc., (P.), B., 761.
- Favorski, A. E. [with Kotehergine, (Mlle.) E. M., Umnova, (Mlle.) A. I., Vasiliev, and Venus-Danilova, E.], reactions of simultaneous reduction and oxidation, and isomeric transformations, A., 866.
- Favrel, G., formation of the hydrazones of ethyl γ -chloroacetate, A., 155.
action of chloroacetone on diazonium hydroxides, A., 166.
- Favrel, G., and Bucher, Stepanov's method for determining halogens in the benzene nucleus, A., 82.
- Favrel, G., and Chrz, J., derivatives of ethyl acetoneoxalate, A., 155.
- Fawns, H. T., determination of added phenol and cresol in milk, B., 798.
- Fawson, H. R. See Fairbourne, A.
- Fayet. See Courtot, C.
- Fayet, J. F. M., gas producer, (P.), B., 115.
- Fear, C. M., and Nierenstein, M., colour variations of cyanidin chloride and 3 : 5 : 7 : 3' : 4'-pentahydroxyflavylium chloride as related to acidity and alkalinity, A., 646.
- Feather, N., and Nimmo, R. R., ionisation curve of an average α -particle, A., 215.
- Fedar, E., and Rath, L., fluorescence under the analytical quartz lamp of lard containing paraffin, B., 374.
- Federal Abrasives Co. See White, H. E.
- Federal Phosphorus Co. See Klugh, B. G., and Neville, N.
- Fedorov, N. A., calcium, inorganic phosphorus, and alkaline reserve of the blood of horses which have undergone various endurance tests, A., 912.
- Fedorova, A. M. See Rodionov, W. M.
- Fedorova, O. See Pamfilov, A. V., and Zaykovski, J.
- Fedotéev, N. P. See Fedotéev, P. P.
- Fedotéev, P. P. [with Fedotéev, N. P.], electrolytic separation of copper from cuprous chloride solutions, A., 850.
- Fedotéev, P. P. [with Nedrigailov, D. N.], cause of formation of hair copper in copper mattes; (system : iron-copper-sulphur), A., 20.
- Fehér, D., carbon dioxide nutrition of the forest, A., 558.
use of the Lundegårdh apparatus for the determination of the carbon dioxide production of forest soil, B., 381.
- Fehér, D., and Sommer, G., carbon dioxide nutrition of the forest. II., A., 1406.
- Fehlmann, M. See Ferrero, P.
- Fehrlé, A. See I. G. Farbenind. A.-G.
- Feichtinger, E. See Möller-Arnold, E.
- Feige, R., production of high-value oils from raw coal by low-temperature distillation and hydrogenation, (P.), B., 356.
- Feigensohn, M. See Pulverfabr. Skoda-Wetzler, A.-G.
- Feigl, F., drop reactions, A., 382.
detection of sulphide and thiosulphate, A., 1106.
specific reagents for silver and a new sensitive test for silver, A., 1108.
detection of magnesium in rocks by means of the diphenyl-carbazide reaction, A., 1108.
- Feigl, F. [with Krumholz, P.], detection of phosphate [in presence of arsenate] and molybdate, A., 1107.
- Feigl, F., and Bäcker, E., composition and properties of ferric sulphide, A., 1105.
relation between atomic grouping and specific affinity. VIII. Additive compounds of thallium dienol salts and carbon disulphide, A., 1125.
- Feigl, F., and Charga, E., application of the catalytic effect of carbon disulphide to the iodometric determination of azides and to the detection of carbon disulphide, A., 1106.
reactivity of iodine in organic solvents. I., A., 1131.
- Feigl, F., and Deutsch, A., silver and mercury salts of 1-amino-benzthiazole, A., 1143.
- Feigl, F., and Gleich, H., relationship between atomic grouping and specific affinity. VII. Salt-formation capacity of glyoxaline derivatives, A., 1026.
- Feigl, F., and Leitmeyer, differentiation of dolomite and magnesite, A., 1206.
- Feild, A. L., manufacture of stainless iron, (P.), B., 715.
rate of carbon elimination and degree of oxidation of the metal bath in basic open-hearth practice, B., 572.
- Feild, A. L., and Electro Metallurgical Co., alloy and its manufacture, (P.), B., 863.
- Feinschmidt, O. See Ferdmann, D.
- Feist, A., and Kopp, F. L., manufacture in the cold state of tiles for walls and slabs for floors, (P.), B., 449.
- Feist, K., and Dsehu, G. L., synthesis of 3 : 4 : 5-trimethoxy-*o*-phthalic acid, A., 290.
- Feist, K. See also Dienschlag, E.
- Feld & Vorstman G.m.b.H., apparatus for concentrating solutions, (P.), B., 802.
- Feldman, E. D., coating articles of various kinds with metal, (P.), B., 161.
- Feldmann, A., oxidation of sodium amalgam by means of oxygen, B., 12.
- Feldmann, J. See Ostwald, Wolfgang.
- Feldmann, M. K. See Kohn, M.
- Feldmann, P., quantum yield in the photolysis of silver chloride, A., 815.
- Feldt, A., and Vara-Lopez, R., effect of therapeutic substances on the pH of blood, A., 88.
- Feldt, A. See also Chem. Fabr. auf Aktien (vorm. E. Schering), and Schoeller, W.
- Feliciano, R. T. See Vedder, E. B.
- Felix, B. B. C. See Böeseken, J.
- Felix, F. See Society of Chemical Industry in Basle.
- Felix, K., and Buchner, A., decomposition of oxyhaemoglobin with pepsin-hydrochloric acid, A., 537.
- Felix, K., and Dirr, K., dibenzoylarginine, A., 1121.
- Felix, K., and Müller, H., titration of amino-acids and proteins, using indicators, A., 535.
deamination of arginine, A., 744.
- Felix, K. S., Helmrich, and Wanderscheek, colorimeter [for wort, etc.], B., 686.
- Felix, Peltzer & Co., manufacture and use of carbon papers and like transfer materials, (P.), B., 638.
- Fell, E. W., high-frequency vacuum furnace for laboratory use, A., 729.
- Fellenberg, T. von, occurrence of iodine in nature. XII. Geochemistry of iodine. III. Atmophile character of iodine, A., 611.
accumulation of iodine in individual organs, A., 1047*.
iodine metabolism. II., A., 1047*.
behaviour of acid and alkaline soils with iodine manuring, B., 27.
determination of residual nitrogen for the evaluation of gelatin products, B., 310.
fruit-residue spirits with abnormal odour and taste, B., 313.
determination of starch in infants' food, B., 833.
- Fellenberg, T. von, and Honegger, P., determination of moisture in buttermilk powder, B., 833.
- Fellers, C. R., and Griffiths, F. P., jelly-strength measurements of fruit jellies by the Bloom gelometer, B., 727.
- Fellner, I. See Pringsheim, H.
- Fellner & Ziegler Aktien-Gesellschaft, and Young, B., production of anhydrous sodium sulphate from Glauber's salt, (P.), B., 51.
- Fellows, H. C. See Coleman, D. A.
- Fells, H. A., and Firth, J. B., gelation of silicic acid; formation of gas bubbles and drops in silicic acid during gelation, A., 125.
- Felman, J. See Adhikari, G.
- Felton, T. M. See Huber, H. V.
- Fendius, C. See Biltz, W.
- Feng, C. T., determination of ephedrine mixtures by the biuret reaction, A., 78.
- Feng, C. T., and Read, B. E., comparison of *Ephedra equisetina* and *E. sinica* and their seasonal content of ephedrine, A., 560.
ephedrine assay of Chinese *Ephedra*, B., 68.
- Fenn, W. O., simultaneous determination of minute amounts of oxygen and carbon dioxide, A., 804.
carbon dioxide dissociation curve of nerve and muscle, A., 916.
- Fenner, L. See Easley, M. A.
- Fenninger, C. W. See Ives, F. E.
- Fenske, M. R. See Frolich, P. K.
- Fenton, J., and Bain, R., retorts or furnaces, (P.), B., 771.
- Fenwick, F. See Roberts, E. J.
- Ferber, E., sulphur compounds in transformer oil, B., 558.
- Ferchmin, (Frl.) A. See Frisch, S.
- Ferdmann, D., and Feinschmidt, O., creatine-phosphoric acid and methods of determination, A., 1267.
distribution of creatine-phosphoric acid in various muscles and organs of the animal organism, A., 1393.
- Ferdmann, D. See also Palladin, A.
- Ferguson, I. W. See Sackett, W. G.
- Ferguson, J. B., Mulligan, M. J., and Rebbeck, J. W., electrochemical behaviour of silicate glasses. V. Electrical properties of the anode layers, A., 959.

- Ferguson, J. B. See also Mulligan, M. J.
 Ferguson, W. F. C., spectrum of gold chloride, A., 813.
 less refrangible bands in the spectrum of tin monochloride, A., 1306.
- Féricéan, G. See Wahl, A.
- Fermi, E., statistical method for determining certain properties of the atom. I., A., 456.
 anomalous groups in the periodic system of elements, A., 461.
 statistical method for estimating some properties of atoms, and its application to the theory of the periodic system of the elements, A., 570.
 statistical deduction of the properties of the elements, A., 685.
 statistical derivation of the Rydberg correction for *s*-terms, A., 931.
 statistical deduction of some properties of the atom; calculations of Rydberg's correction, A., 933.
- Fermor, L. L., coals as colloid systems, A., 612.
- Fernandes, L., resolution of an absorption band common to praseodymium and neodymium, A., 218, 458.
 thio-salts. IV. Derivatives of a hypothetical thio-aquic acid, A., 259.
 thio-salts. VI. Complex molybdenum vanadium sulphides, A., 973.
- Fernandes, L., and Palazzo, F., thio-salts. III. Polyphenolic complexes, A., 34.
- Fernandes, L. See also Rolla, L.
- Fernández, O., Reimer-Tiemann reaction in the alicyclic series, A., 525.
- Fernández, O., and Garméndia, T., formation of catalase by *Bacillus coli*, A., 1285.
- Fernández, O., and Pizarroso, A., enzymes of oil-bearing seeds. X. Glycerophosphatases, A., 927.
- Fernbach, A., modern malt kilns, B., 312.
- Fernbach, A., Schoen, M., and Mori, M., fermentation of hexoses racemised by dilute alkalis, A., 1158.
- Ferrari, A., diameters of atoms and ions, A., 104.
 system LiCl-CoCl₂, A., 1328.
- Ferrari, A., and Baroni, A., crystal structure of the double chloride of cadmium and caesium, CsCdCl₂, A., 224.
- Ferrari, A., and Fontana, C. G., crystal structure of silver chlorate, A., 223.
- Ferrari, A. See also Bruni, G., and Zambonini, F.
- Ferraro, G. See Dennino, E.
- Ferré, L., oenological indices and reversion of malic acid in wines, B., 383.
- Ferrero, P., and Caffisch, C., *a*-chloronaphthalene. II. Nitration, A., 1235.
- Ferrero, P., and Fehlmann, M., chlorodecalin [chlorodecahydronaphthalene], A., 1235.
- Ferrero, P., and Wunenburger, R., *a*-chloronaphthalene. I. Chlorination of naphthalene in the gaseous phase, A., 627.
- Ferri, C., commercial tomato preserves, B., 463.
- Ferri, C. See also Charrier, G.
- Ferrier, O., and Chenard, V., method of humanising cows' or goats' milk, B., 171.
- Ferrier, R., geometrical molecular specificity, A., 364.
- Ferris, S. W., precision pipette viscosimeter, A., 1208.
- Ferro-Aro Welding Co., Ltd. See Turner, B.
- Ferry, N. S. See Parke Davis & Co.
- Fersmann, A., pigment of emerald, A., 1210.
- Féry, A., variation of the resistivity of thin layers of platinum as a function of their thickness, and the influence of oxygenated substances, A., 353.
- Fesca, P., and Fesca & Sohn, C. A., centrifugal separator and dryer, (P.), B., 143.
- Fesca & Sohn, C. A. See Fesca, P.
- Fesefeldt, H., measurement of oxygen bands in the violet and ultra-violet regions of the spectrum, A., 457.
- Feske, E. See Borsche, W.
- Fessel, G., and Technische Chemikalien Comp. G.m.b.H., manufacture of rubber goods, (P.), B., 341.
- Fessler, A. H., and Kraner, H. M., hydrogen-ion concentration and electrical conductivity of clay slips. I. Plant study, B., 53.
 hydrogen-ion concentration and electrical conductivity of clay slips. II. Laboratory study, B., 263.
- Fessler, A. H. See also Kraner, H. M.
- Fester, G., and Berraz, G., catalytic oxidation of ethyl alcohol, A., 29.
- Fester, G., and Schivazappa, M., electrocatalytic reduction of carbon monoxide, A., 720.
- Fetkenheuer, B. [with Fetkenheuer, H., and Lecus, H.], action of sodium amalgam on carbon disulphide, A., 141.
- Fetkenheuer, B. See also Siemens & Halske A.-G.
- Fetkenheuer, H. See Fetkenheuer, B.
- Feuchter, H., vulcanised "racking" of masticated rubber; anisotropic vulcanisation, B., 377.
 rubber fibre and cellulose fibre; recognition of the elastic linking, B., 457.
 homogeneous rubber and the conception of an elastic molecule, B., 615.
- Feulgen, R., and Behrens, M., stearaldehyde, A., 1117.
- Feulgen, R., Imhäuser, K., and Westhues, M., plasmalogen. I. absorption of plasmalogen and the conditions for the establishment of alimentary plasmalogenemia, A., 538.
- Feussner, K., visible and ultra-violet dispersion of organic substances, A., 348.
- Fialkov, J. A., dicyanotriazole, A., 651*.
- Fical, C., absorption by colloidal oxides and active carbon of sulphur dioxide present in gaseous mixtures in small proportions, A., 944.
- Fichoux, A., recovery of vapours of volatile substances soluble in water, B., 695.
- Fichter, F., oxidations with fluorine, A., 382.
- Fiehter, F., and Brunner, E., action of fluorine on aqueous solutions of chromium and manganese salts, A., 973.
- Fiehter, F., and Gutzwiller, E., electrochemically prepared perphosphates, A., 489.
- Fichter, F., and Herszbein, S., stannic dichloride diacetate, A., 603.
- Fichter, F., and Senti, R., electrochemical oxidation of β -phenylpropionic acid, A., 253.
- Fichter, F., and Stern, S., mercuric tetramminopersulphate, A., 971.
- Fichter, F., and Zumbrunn, R., di-*n*-hexoyl peroxide and per-*n*-hexoic acid, and the detection of peroxides by electrolysis of potassium hexoate, A., 45.
- Fick, J. C., effect of liquid manure on soils and utilisation of the potassium and phosphoric acid of liquid manure by plants, B., 134.
- Fiedler, H. W., preservation of vulcanised rubber, (P.), B., 341.
- Fiehe, J., separation of honey, B., 385.
 composition and evaluation of honey from sugar-fed bees, B., 544.
 Cuban honey, B., 834.
- Fiehe, J., and Kordatzki, W., acidity of honey and artificial honey, B., 385.
 diastase in honey, B., 543.
 cryoscopic examination of milk and determination of the "cryolac number" and the chlorine-sugar number, B., 687.
 dextrans of honey and artificial honey, B., 911.
- Field, B. E. See Franks, R.
- Field, C., and National Aniline & Chemical Co., Inc., method of sublimation, (P.), B., 362.
- Field, J. C. & J., Ltd., and Polan, E., manufacture of toilet creams, (P.), B., 99.
- Field, M. E. See Loeb, L.
- Field, R. M., the Great Bahama Bank; marine carbonate sediments, A., 1111.
- Fieldner, A. C., and Brown, R. L., values obtained in synthesis of methanol [methyl alcohol], B., 920.
- Fieldner, A. C. See also Sayers, R. R.
- Fierz-David, H. E., sulphonation of anthraquinone, A., 293.
- Fierz-David, H. E., and Ziegler, E., azo-dyes from acetoacetonilides, A., 1238.
- Fieser, L. F., tautomerism of hydroxyquinones, A., 423.
 2-hydroxy-1:4-anthraquinone, A., 423.
- Fieser, L. F. See also Braun, J. von.
- Figdor, H. See Gebauer-Fülnegg, E.
- Filippov, A., ultra-violet fluorescence of iodine monobromide vapour, A., 459.
- Filosofov, M. S., determination of melassigenic nitrogen in beet-root, B., 30.
 utilisation of filter-press residues [in sugar manufacture], B., 540.
- Filosofov, M. S., and Malinovski, V. E., citric acid fermentation, B., 584.
- Filosofov, M. S., and Shtaub, B. K., movement of nitrogen in the yeast mash, B., 542.

- Filtrol Co. See Baylis, W. S.
- Finálý, S. von, gravimetric determination of sulphuric acid in presence of antimony, A., 1024.
- Finch, A. C. See Campbell, C.
- Finch, G. I., and Stimson, J. C., electrical condition of hot surfaces during the adsorption of gases. II. A nickel surface at temperatures up to 850°, A., 1087.
- Finch, M. W. See Pucker, G. W.
- Fincke, H., cacao beans and cocoa products. V. Pigments of cacao beans and cocoa products; ash content of cocoa paste, B., 911.
- Findlay, A., and Campbell, A. N., influence of constitution on the stability of racemates, A., 1083.
- Findlay, W. M., and Dower, G., value of the chemical test in the identification of wild white clover, B., 136.
- Fine, M. S., and Olsen, A. G., tallowiness or rancidity in grain products, B., 585.
- Fink, C. G., form of tungsten and manufacture of same, (P.), B., 821.
- Fink, C. G., and King, W. G., jun., nickel mirrors by the nickel carbonyl method, B., 819.
- Fink, C. G., and Mantell, C. L., physico-chemical properties of stannous oxide, A., 257.
- leaching raw and roasted tin concentrates and tin oxides, B., 526.
- thermic reduction with metals of Bolivian tin concentrates, B., 526.
- reduction roasting, leaching, and electrolytic treatment of Bolivian tin concentrates, B., 574.
- Fink, C. G., and Prince, J. D., co-deposition of copper and graphite, B., 822.
- Fink, C. G. See also Siemens & Halske A.-G.
- Fink, D. E., is glutathione the arsenic receptor in insects? A., 921.
- Fink, J. H. See Benner, R. C.
- Fink, W. L. See Acher, R. S.
- Finkelstein, B. N., and Horowitz, G. E., energy of the helium atom and of the positive ion of the hydrogen molecule, A., 570.
- Finkelstein, H. See I. G. Farbenind. A.-G.
- Finkelstein, W., and Kudra, O., electrochemistry of the system benzamide-bromine-nitrobenzene, A., 368, 958.
- Finken, H. See Schenck, R.
- Finkle, R. See Talbert, G. A.
- Finlayson, D. See Rowell, H. S.
- Finlayson, T. C., carbonisation in vertical retorts, B., 76.
- Finlayson, T. C. See also Woodall-Duckham (1920), Ltd.
- Finlow, R. S. See Carbery, M.
- Finn, A. N. See Tilton, L. W.
- Finn, J. L. See Drinker, P.
- Finner, L. L. See Long, E. R.
- Finzel, T. G. See Walton, J. H.
- Finzi, C., lindithioxanthone, A., 769.
- ercsolarsinic acids, A., 1386.
- Fioletova, A., action of dilute acid and of sodium carbonate solution on mica, A., 42.
- Firestone Tire & Rubber Co. See Shepard, N. A.
- Firmenich, F. See Naef, M.
- Firth, E. M. See James, R. W.
- Firth, J. B. See Fells, H. A.
- Firth, J. C. B., and Dickinson, F. G., testing the hardness of metals, (P.), B., 96.
- Fischbach, E. See Hahn, A.
- Fischbeck, K., and Einecke, E., electrochemical reduction of solid electrodes. III. Chromites. IV. Sulphides, A., 1197.
- Fischbeck, K., and Elben, E., action of aqueous sodium polysulphide solutions on metallic copper, A., 1333.
- Fischer, A., radioactive material, (P.), B., 489, 790.
- Fischer, A. H., and Guggenheim Bros., flotation process, (P.), B., 821*.
- Fischer, A. H. See also Guggenheim, D.
- Fischer, B. See Kappen, H.
- Fischer, B., relation between the reducing power of sea water and the distribution of sea-shore organisms, A., 148.
- Fischer, Erich, Heyna, H., Müller, C. J., and Grasselli Dyestuff Corporation, manufacture of violet vat dyes [of 2-thionaphthen-2'-indoleindigo series], (P.), B., 741*.
- Fischer, Erich, Müller, C. E., and Grasselli Dyestuff Corporation, production of yellow dyes on cellulose esters or ethers, (P.), B., 744.
- manufacture of a yellow azo-dye [for acetate silk], (P.), B., 809*.
- Fischer, Erich. See also Hoffa, E., and Wagner, Hermann.
- Fischer, F. [with Bangert, F.], formation of acetylene-yielding carbides at relatively low temperatures, B., 892.
- Fischer, F. [with Pichler, H., Meyer, K., and Koch, H.], synthesis of benzene hydrocarbons from methane under ordinary pressures and without catalysts, B., 844.
- Fischer, F., and Diltney, P., production of pure carbon at low temperatures, B., 146.
- removal of hydrogen sulphide from industrial gases by alkaline potassium ferricyanide solutions, B., 433.
- removal of carbon dioxide from industrial gases with alkali carbonates at normal pressures, B., 433.
- Fischer, F., and Pichler, H., formation of gaseous and liquid hydrocarbons by the action of steam and of alkali on semi-coko under increased pressure, B., 629.
- Fischer, F., and Tropsh, H., conversion of methane into hydrogen and carbon monoxide, B., 322.
- Fischer, F., Tropsh, H. [with Koch, H.], composition of the products obtained in the synthesis of petroleum, B., 324.
- Fischer, F., and Wangenheim, von, reduction of carbon monoxide and dioxide with hydrogen in the hot-cold tube at ordinary and high pressure, B., 354.
- gas reactions in the hot-cold tube, B., 355.
- Fischer, F. G., succino-dehydrase, A., 89.
- Fischer, F. G. [with Löwenberg, K.], constitution of phytol, A., 989.
- Fischer, G. E. See Muntyan, A. B.
- Fischer, Hans, uptake, fixation, and decomposition of digitalis compounds and their action on the heart, A., 670.
- [porphyrins and their syntheses], A., 1028.
- Fischer, Hans, Beller, H., and Stern, A., reactions of ethyl 2-methylpyrrole-3-carboxylate, 2-methyl- and 2:3-dimethylpyrrole, A., 772.
- Fischer, Hans, Friedrich, H., Lamatsch, W., and Morgenroth, K., porphyrin syntheses. XVIII. Syntheses of coproporphyrins I and II, and mesoporphyrins II, V, and XII, A., 1384.
- Fischer, Hans, Grosselfinger, H., and Stangler, G., porphyrin syntheses. XIV. Synthesis of porphyrinmonocarboxylic acids and some of their complex salts, A., 651.
- Fischer, Hans, and Hummel, G., bromoporphyrin I and tetramethylhaematoporphyrin iron salt. I. and II, A., 658, 1143.
- Fischer, Hans, and Kirstahler, A., porphyrin syntheses. XIX. Synthesis of deuterohæmin and deuteroporphyrin, A., 1385.
- Fischer, Hans, and Lamatsch, W., porphyrin syntheses. XVII. Syntheses of opso- and hæmo-pyrrolecarboxylic acids; synthesis of coproporphyrin. II, A., 902.
- Fischer, Hans, and Pützer, B., pyrrole and complex salts, A., 771.
- Fischer, Hans, and Rothemund, P., determination of active hydrogen in hæmin, in certain of its derivatives, and in pyrroles. III, A., 903.
- Fischer, Hans, and Schwerdtel, F., natural porphyrins. XXII. Hæmins obtained from yeast, A., 658.
- Fischer, Hans, and Stangles, G., porphyrin syntheses. XIII. Syntheses of mesoporphyrin, mesohæmin, and the constitution of hæmin, A., 76.
- porphyrin syntheses. XVIII. Synthesis of three tetraethylporphintetrapropionic acids (homologous coproporphyrins); xanthoporphinogen from ætioporphyrin III and one of the homologous opsopyrrolecarboxylic acids, A., 778.
- Fischer, Hans, Sturm, E., and Friedrich, H., porphyrin syntheses. XV. Synthesis of 2:2'-disubstituted pyrroles and porphyrin syntheses from simple pyrroles, A., 776.
- Fischer, Hans, and Treibs, A., chlorophyll. I. Ætioporphyrins from plant and blood pigment porphyrins, A., 1382.
- Fischer, Hans, Treibs, A., and Heiberger, H., chlorophyll. II. Rhodins and verdins, A., 1383.
- Fischer, Hans, and Wasenegger, H., porphyrin syntheses. XVI. Syntheses of porphyrins with nitrile function, A., 777.
- Fischer, Hans, and Zeile, K., hæmin syntheses. I, A., 902.
- Fischer, Hellmut, detection and determination of small quantities of beryllium by means of 1:2:5:8-tetrahydroxyanthraquinone, A., 385.
- detection of cobalt by means of diphenylthiocarbazone, A., 727.
- Fischer, Hellmut, and Siemens & Halske A.-G., production of technical pure beryllium respectively for freeing metallic beryllium from impurities, (P.), B., 610*.
- Fischer, Hellmut. See also Siemens & Halske A.-G.
- Fischer, J. See Ruff, O.

- Fischer, J. See Siemens-Schuckertwerke Ges.m.b.H.
 Fischer, M. N., and Bunte, A. J., biochemical nature of *B. paratyphosus* B., Schottmüller, and *B. enteritidis*, Breslau, and a new differentiating medium for these, A., 1285.
 Fischer, O. See Simon, A.
 Fischer, P., electrical conductivity of solid sulphide mixtures, A., 369.
 Fischer, R., hæmolytic action of irradiated ergosterol and cholesterol, A., 1392.
 Fischer, R., radioactive substances and preparations thereof, (P.), B., 748.
 Fischer, V., thermodynamics of mixtures, A., 241, 955, 1191.
 Fischer, W. See Houben, J.
 Fischer-Hollinshead Co., Inc. See Grönningssæter, S.
 Fischer-Treuenfeld, A. von, [relation between atomic number and] atomic weight, A., 809.
 Fischler, F., decomposition of dextrose in toxic insulin action, A., 331.
 Fischler, F., and Boettner, R., determination of methylglyoxal in alkaline iodine solution, and the mechanism of the reaction, A., 870.
 alkali fission of pentoses, A., 1117.
 Fischler, F., and Hirsch, O., action of sugar in the organism. IV. Behaviour of blood-sugar after intravenous injections of methylglyoxal, dihydroxyacetone, and dextrose, A., 442.
 Fischler, F., and Linder, A. F., decomposition of sugars by the action of very dilute alkalis, A., 740.
 Fischler, J., apparatus for effecting reactions between gases and liquids, especially for the production of sulphuric acid using nitric acid or oxides of nitrogen, (P.), B., 802.
 Fishberg, A. M. See Fishberg, E. H.
 Fishberg, E. H., and Fishberg, A. M., composition of blood in lipæmia after hæmorrhage, A., 791.
 Fisher, D. F. See Harley, C. P.
 Fisher, D. G. See Woodman, M. G.
 Fisher, E. A., and Halton, P., "rope" in bread, B., 622.
 Fisher, E. A., and Jones, C. R., determination of moisture in wheat and flour; "moisture testing" in water-ovens and electric ovens, B., 909.
 Fisher, E. E., manufacture of glass, (P.), B., 642*.
 Fisher, E. E., and Batchell, G. W., manufacture of glass, (P.), B., 405.
 Fisher, E. H., and Fisher Scientific Co., laboratory tongs, (P.), B., 112.
 Fisher, H. C., and Richardson Co., colouring mineral matter [slate], (P.), B., 817.
 Fisher, H. L., conversion of rubber into thermoplastic products with properties similar to gutta-percha, balata, and shellac. I. Preparation and general properties, B., 61.
 Fisher, H. L., and Goodrich Co., B. F., production of rubber compositions, (P.), B., 494.
 Fisher, H. L., and Gray, A. E., chemical unsaturation of rubbers vulcanised with polynitro-compounds and benzoyl peroxide, and its possible bearing on vulcanisation, B., 308.
 Fisher, H. L., and McCollm, E. M., conversion of rubber into thermoplastic products with properties similar to gutta-percha, balata, and shellac. II. Chemistry of the reaction, B., 61.
 Fisher, J. P., and Heat-Treating Co., distillation of liquid mixtures, (P.), B., 589.
 Fisher, R. A. See Eden, T.
 Fisher, W. S. See Trusler, H. M.
 Fisher Scientific Co. See Fisher, E. H.
 Fiske, A. H., and Rumford Chemical Works, bread improver, (P.), B., 242.
 Fiske, C. H., and Subbarow, Y., isolation and function of phosphocreatine, A., 744.
 Fitz, R. See Murphy, W. P.
 FitzGerald, J. G., and Central Alloy Steel Corporation, method of zinc-coating ferrous metal, (P.), B., 644.
 Flaherty, E. M., and Du Pont de Nemours & Co., E. I., production of low-viscosity lacquer and film, (P.), B., 61*.
 Flaschenträger, B., Heraeus electric micro-combustion furnace, A., 984.
 Flaschenträger, B., and Löhr, G., is succinic acid present in ox blood? A., 538.
 Flaschner, J., glueing wood with starch or starch-containing substances, (P.), B., 908.
 Flatau, J., and Korczyński, A., Polish turpentine, B., 23.
 Flatov, L., ferrieyanide micro-method in blood analysis, A., 540.
 Flatt, R., separation of zinc formaldehyde-sulphoxylate from zinc formaldehyde-bisulphite, B., 891.
 Flechsig, W., phenomenon of saturation in the current carried by continuously irradiated crystals, A., 466.
 Fleck, E. E. See Jones, L. W., and Major, R. T.
 Fleck, L. C. See Hawley, L. F., and Ritter, G. J.
 Flege, R. K. See Barkenbus, C.
 Fleicher, H., coloured reserves under sulphur dyes [by printing], B., 479.
 Fleischer, A., adsorption of vapours, A., 1086.
 Fleischer, E., production of generator gas from bituminous coal with by-product recovery, (P.), B., 806.
 Fleischer, R., and Goldschmidt, H., characteristics of alkali cells and their significance for photo-electric methods of measurement, A., 1331.
 Fleischmann, R. See Abderhalden, E., and Küster, W.
 Fleischmann, W., occurrence of lipase in polymorphonuclear leucocytes, A., 1391.
 Fleischmann Co. See Corby, R. L., Gore, H. C., Harrison, A. P., Hoffman, C., Hixson, A. W., Kohman, H. A., and Ransohoff, F.
 Fleisher, N. A. See Yakovkin, A. A.
 Fleissner, H., apparatus for indicating the methane content of the air in mines, (P.), B., 44.
 catalytic process for desulphurising hot gases, (P.), B., 220.
 drying of coal and similar fuels, (P.), B., 700.
 Fleissner, M. See Przeborowski, J.
 Fleming, J. W. See Merrill, H. B.
 Fleming, W. E., and Wagner, R., miscible carbon disulphide, B., 703.
 Flemming, W., and Silesia Verein Chem. Fabr., oxidation of aralkyl-substituted dithiocarbamic acids to the corresponding disulphides, (P.), B., 293*.
 Flemming, W. See also Silesia Verein Chem. Fabr.
 Flerow, K., solubility of phosphorites in salt solutions saturated with carbon dioxide, B., 28.
 Flesch, H., production of sulphuric esters of poly[hydr]oxy-fatty acids, (P.), B., 455.
 production of sulphonated oils and fats with a high content of organically combined sulphuric acid, (P.), B., 456, 902.
 Fletcher, G. H., Sumpter, C. L., and Metropolitan-Vickers Electrical Co., Ltd., [torch for] surface-hardening of metal articles, (P.), B., 716.
 Fletcher Works, Inc. See Schaum, C.
 Fleury, P., and Ambert, P., alkaalisation of ash at the expense of alkali chlorides, a source of error in determining organic acids by Hehner's method, A., 1044.
 partial decomposition of alkali chlorides in the incineration of organic matter (particularly nitrogenous organic matter), A., 1267.
 Fleury, P., and Boyeldieu, G., determination of dextrose in presence of proteins; with particular reference to starch in "gluten" bread, B., 383, 464*.
 determination of starch in bread, B., 463.
 Flexner, L. B. See Berkson, J., and Michaelis, L.
 Flink, G., weslicite from Långban, A., 1350.
 sarkinite from Långban, A., 1350.
 Flint, C. F., determination of total carbon and carbon dioxide in small quantities of soil solutions, B., 136.
 Flint, H. T., and Richardson, O. W., minimum proper time and its applications (1) to the number of the chemical elements, (2) to some uncertainty relations, A., 345.
 Flodin, H. G., and Gustafsson, E. G. T., producing metals or alloys low in carbon directly from ore, etc., (P.), B., 863*.
 Flodin, H. G., Gustafsson, E. G. T., and Broadby, H., production of volatile metals from their sulphides, (P.), B., 759*.
 Flodin, H. G., Gustafsson, E. G. T., and Cornelius, H. G. E., direct-reduction process for producing carbon-binding metals or alloys, (P.), B., 863*.
 Flöttmann, F., solubility equilibria, A., 357.
 Flood, S. A., and Nieuwland, J. A., catalytic condensation of acetylene with phenols. II. Resorcinol, A., 1239.
 Flood, W. E., Booth, D. C. [with Beisler, W. H.], China wood oil [tung oil] in lacquer. I, B., 579.
 Flor, K. See Liechtenberger, T.
 Florence, G., Enselme, J., and Zola, T., variations of the different forms of phosphorus under the influence of diabetes and hypoglycæmic agents, A., 915.
 Florence, G., and Zola, T., phosphorus in the metabolism of blood-sugar, A., 315.
 Florence, G. See also Fournau, E.
 Florentin, D., composition of the air in the streets of Paris, A., 147.

- Flores, *E. M.*, liquid fuel, (P.), B., 292*.
- Florey, *H.* See Hewitt, *L. F.*
- Flory, *H.*, production of brocaded textiles, (P.), B., 258.
- Flower, *W. D.*, emission of particles from hot platinum in air at atmospheric pressure, A., 677.
- Flubacher, *M.*, preservation of fodder, (P.), B., 501.
- Fluchaire, *M.* See Grignard, *V.*
- Fluck, *R. C.*, and Theil, *A.*, manufacture of fertilisers, (P.), B., 459.
- Flück, *H.*, determination of filicin in extract of male fern, A., 560.
- Flürsoheim, *B.*, and Holmes, *E. L.*, laws of aromatic substitution. VI. Quantitative method for the rapid determination of isomeric nitro-derivatives of laterally substituted toluenes, A., 403.
- laws of aromatic substitution. VII. Constitution and substitution of phenylnitromethane and some of its derivatives, A., 403.
- laws of aromatic substitution. VIII. and IX., A., 876, 1126.
- Flumiani, *G.*, structure of gels. I. Colloidal solutions of a photopolymerisation product of vinyl chloride, giving solid, waxy masses and gels, A., 836.
- Flurin, *H.*, sulphur metabolism, A., 325.
- Foamite-Childs Corporation, apparatus for mixing powder with liquid, (P.), B., 73.
- Focke, *A. E.* See Blake, *F. C.*
- Fodor, *A.*, and Cohn, *R.*, influence of various amino-acids on yeast peptidase, A., 922.
- Fodor, *A.*, and Epstein, *C.*, degradation of gelatin with acetic anhydride, A., 435.
- degradation of gelatin and gelatin-peptone with acetic anhydride; isolation of associated polypeptides, A., 1387.
- Fodor, *A.*, and Mayer, *K.*, dependence of the viscosity of gelatin solutions on temperature, A., 585.
- Fodor, *A.*, and Reitenberg, *A.*, examination of sols produced by peptisation of oxides of iron with silicic acid sol, A., 704.
- Fodor, *A.*, and Rivlin, *R.*, dependence of the velocity of coagulation of sols of ferric hydroxide and sulphur on the concentration of the sol and of the coagulator, A., 236.
- Fodor, *A.*, and Rosenberg, *A.*, adsorption of iron from ferric hydroxide sols and ferric chloride solutions by kaolin and by talc, A., 1318.
- Fodor, *A.*, and Schoenfeld, *R.*, comparative experiments on the fission of silk-peptone and dipeptides with so-called glycine eluates, A., 535.
- degradation of gelatin by glycerol under various conditions; isolation of a non-colloidal intermediate product hydrolysable by pepsin, A., 1387.
- Föhre, *A.* See Ostwald, *Wolfgang.*
- Föhrenbach, *E.* See Rhenania-Kunheim Verein Chem. Fabr. A.-G.
- Földi, *Z.*, introduction of the benzyl group into the benzene nucleus by means of sulphonic esters, A., 1234.
- Fölling, *A.* See Dill, *D. B.*, and Talbot, *J. H.*
- Foerst, *W.* See Busch, *M.*
- Foerster, *F.*, and Krüger, *Franz.*, behaviour of nickel anodes, A., 136.
- Foerster, *F.*, and Landgraf, *A.*, bituminous coal of the Plau series near Dresden, B., 554.
- Förstner, *B.*, action of insulin on the utilisation of carbohydrate by the starving animal, A., 675.
- Fogelberg, *H. P.*, 3-methyl-4'-isopropyl-diphenyl-2 : 2'-dicarboxylic acid, A., 290.
- Fohlen, *J. L.*, fire extinguisher, (P.), B., 42*.
- Fol, *J. G.*, and De Visser, *W.*, latex contaminated with copper compounds as a source of danger of fire, B., 277.
- Folbert, *F.* See Hartung, *L. H.*
- Foley, *C. B.*, and Foley, Inc., *C. B.*, electric [induction] furnace, (P.), B., 374.
- electric [induction crucible] furnace, (P.), B., 900.
- Foley, Inc., *C. B.* See Foley, *C. B.*, and Sasnett, *E. C.*
- Folin, *O.*, determination of blood-sugar, A., 786.
- Fonda, *G. R.*, evaporation of tungsten under various pressures of argon, A., 354.
- Fonda, *G. R.*, and General Electric Co., [preparation of tungsten filaments for electric incandescence lamps, (P.), B., 59.
- zirconium alloy, (P.), B., 235*.
- isolation of argon, (P.), B., 367.
- Fontana, *C. G.*, gold purple. II., A., 257.
- Fontana, *C. G.* See also Ferrari, *A.*, and Levi, *G. R.*
- Fontein, (*Miss*) *C. C. J.*, velocity measurements of intramolecular changes in arylacylhalogenoamines, A., 716.
- Fontès, *G.*, and Thivolle, *L.*, distribution of the carbohydrate reducing substances between plasma and blood-corpuscles, A., 438.
- presence of two reducing carbohydrates in blood, A., 438.
- the saponifiable reducing carbohydrate of blood-plasma, A., 539.
- micro-analytical filtration, A., 608.
- mercurial deproteinisation of blood in the determination of dextrose, A., 786.
- insulin does not increase the fixation of blood-sugar by lymphocytes, A., 1404.
- molybdomanganimetric determination of lactose, B., 620.
- Fonzes-Diacon, tartaric acid index in red and white pressed wines, B., 31.
- abnormal wines, B., 240.
- stabilisers for wines; [determination of volatile acids], B., 686.
- Food Chillers, Ltd., and McLeod, *A. R.*, conservation of foodstuffs for lengthy periods under chilled conditions, (P.), B., 347.
- Footé, *H. W.*, and Vance, *J. E.*, hydrates, transition temperatures, and solubility of sodium iodate, A., 842.
- Footé, *P. A.*, derivatives of *p*-methoxycinnamic acid, A., 1374.
- Footé, *P. D.*, ionisation of mercury vapour by 2537 Å. radiation, A., 1298.
- Foott, *C. H.* See Donnelly, *J. T.*
- Foray, *E.*, purification of olive oil and other edible oils, (P.), B., 417.
- Forbes, *G. S.*, experimental technique for quantitative study of photochemical reactions, A., 600.
- Forbes, *G. S.* See also Dorcas, *J.*
- Forbes, *J. S.*, evaporation and distillation [of feed-water make-up], (P.), B., 466.
- Ford, *K. L.*, and Osborne, *A. G.*, protective tubes for thermocouples for determining heat penetration in processed foods, B., 106.
- Ford, *S. G.* See Adams, *R.*
- Foreman, *F. W.*, rapid volumetric determination of amino-acids, organic acids, and bases. I. Determination of ammonia and volatile amines in biological fluids and determination of the different classes of acid radicals represented in the total alcohol titration value. II. Quantitative removal and determination of the carbonic acid radical especially in bacterial cultures, A., 448.
- Foreman, *F. W.*, and Smith, *G. S. G.*, changes produced in meat extracts by the bacterium *Staphylococcus aureus*; application of the alcohol titration methods, B., 464.
- control of reaction in cultures and enzymic digests; comparison of the effects of certain salts on changes in p_H and changes in absolute $[H^+]$ with reference to enzyme action; rôle of creatinine in the control of reaction in cultures, B., 464.
- Forestier, *H.*, magnetic changes of iron sesquioxide, its solid solutions, and ferromagnetic compounds, A., 823.
- Forjaz, *A. P.*, spectrochemistry of Portuguese mineral waters; that of Gereç, A., 730.
- Forkel, *H.* See Weyland, *C.*
- Forkert, *H.*, action of soil acids on cultivated plants, B., 535.
- Formánek, detection and determination of light petroleum, benzene, alcohol, ether, and tetralin in motor fuels, B., 435.
- Formánek, *J.*, effect of substituents on the colour and absorption spectrum of indigotin, thioindigotin, and indirubin, A., 1380.
- Fornet, *A.*, rapid ashing furnace, A., 610.
- Forrer, *R.* See Weiss, *Pierre.*
- Forrester, *D. L.*, flotation method and apparatus [for concentration of ores], (P.), B., 58.
- Forrester, *J. D.*, and McInerney, *P. J.*, manufacture of asphaltic material [for roads], (P.), B., 524.
- Forró, (*Frl.*) *M.*, variation of dielectric constant of some gases with temperature at different pressures, A., 347.
- Forsgren, *E.*, relation between bile and glycogen formation in rabbit's liver, A., 1399.
- Forsblad, *N. R.*, heat exchanger, (P.), B., 771.
- Forst, *A. W.*, detoxication of hydrogen cyanide, A., 444.
- Forster, *R.*, anomalous dispersion in the X-ray region, A., 939.
- Forster, *R. B.*, Hanson, *T. H.*, and Watson, *R.*, arylamine salts of the naphthalenesulphonic acids. V. Acetylation of Peri, Laurent, and Brønner acids and the arylamine salts of their acetyl derivatives, A., 1236.

- Forster, R. B., and Mosby, D. H., arylamine salts of the naphthalenesulphonic acids. VI. Salts of Koch acid, "H" acid, and chromotropic acid, A., 1236.
- Forsyth, R., and Rodgers, H. J., treatment of fibrous vegetable material, (P.), B., 48.
- Fort, A. See Tuck, D. A.
- Fosbinder, R. J., Daniels, F., and Steenbock, H., photochemical activation of sterols in the cure of rickets, A., 557.
- Foshag, W. F. See Hess, F. L.
- Foshay, L., insulin reactions, A., 205.
- Fosse, R., allantoic acid, a new nitrogenous principle of plants, A., 560*.
- Fosse, R., and Bossuyt, V., determination of allantoic acid as xanthylcarbamide; application to analysis of leaves of *Acer pseudoplatanus*, A., 803*.
- Fosse, R., and Hieulle, A., identification of allantoic acid in leaves of *Acer pseudoplatanus*, A., 803*.
- mercury compound of allantoic acid by means of which it may be identified in *Phaseolus vulgaris*, A., 803*.
- Foster, D. G., and Brown, S. F., organic selenium compounds; derivatives of aromatic seleno-ethers, A., 655.
- Foster, I. M. See Mulligan, P. C.
- Foster, J. S., application of quantum mechanics to the Stark effect in helium, A., 101.
- Foster, J. S., and Chalk, (Miss) M. L., observed relative intensities of Stark components of H_{α} , A., 687.
- Foster, J. S., and Rowles, W., Stark effect in neon, A., 1296.
- Foster, M. E. See Cameron, A. T.
- Foster, M. F. See Bollmann, H.
- Foster, V. T. S. See Genders, R.
- Foster, W. C., and Garrett, A. C., increasing the efficiency of zeolites in treatment of water, (P.), B., 876.
- Foster Wheeler Corporation. See Bell, J. E., and Lonsdale, W.
- Fothergill, R. E. See Gilman, H.
- Fouassier, M., appraisement of contaminated milk, B., 208.
- Foulds, R. P. See Tootal Broadhurst Lee Co., Ltd.
- Foundation Oven Corporation, coke ovens, (P.), B., 114, 356.
- Fournet, M., distillation of vegetable material with a high water content, (P.), B., 116.
- surface-treatment of metal articles, (P.), B., 338.
- Fourneau, E., and Brydowna, (Mlle.) W., action of anhydrous chloral on amino-alcohols and on hydroxy-amino-ethers containing a tertiary amino-group, A., 1228.
- Fourneau, E., and Établissements Poulenc Frères, preparation of salts of 3-acetyl-amino-4-hydroxyphenylarsinic acid, (P.), B., 692*.
- Fourneau, E., and Florence, G., ureides of bromovaleric acids. I. Influence of the migration of the halogen on their physico-chemical and pharmacodynamic properties, A., 158.
- ureides of bromovaleric acids. II. Influence of branched chains on physiological properties, A., 401.
- ureides of bromovaleric acids. III. Influence of the position of the halogen atom in the acid on physiological properties, A., 1229.
- Fourneau, E., and Funke, A., condensation of 4-chloro-3-nitrophenylarsinic acid with amines, in particular ethylenediamine and piperazine; reduction of the nitro-derivatives to amines, A., 1146.
- Fourneau, E., and Ribas, I., stereoisomerism and anaesthetic action; separation of methylethylidimethylaminomethylcarbinol into its two enantiomorphs and preparation of the two optically active stovaines, A., 49.
- Fourneau, E., and Sabetay, S., [ethyl] hydrogen dicarboxylates, A., 1115.
- Fourneau, E., Tréfouel, J., and Tréfouel, (Mme.) J., amino-alcohols of the naphthalene series, A., 635.
- Fourneau, E. See also Établissements Poulenc Frères.
- Fourton, A. See Bourcet, P.
- Fowinkel, P. See Weltzien, W.
- Fowler, A., spectrum of doubly-ionised oxygen (O III), A., 98.
- spectra and atoms, A., 565.
- Fowler, A., and Selwyn, E. W. H., arc spectrum of carbon, A., 450.
- spectrum of singly-ionised carbon (C II), A., 1165.
- Fowler, G. J., Kotwal, G. N., Norris, R. F., Ranganathan, S., and Roy, M. B., intensive bacterial oxidation [of activated sludge]; oxidation of ammonia to nitric acid, I—IV., B., 318.
- Fowler, R. H., restored electron theory of metals and thermionic formulae, A., 341.
- Fowler, R. H., photo-electric threshold frequency and the thermionic work function, A., 452.
- chemical constant of hydrogen vapour and the failure of Nernst's heat theorem, A., 469.
- Fowler, R. H., and Nordheim, L., electron emission in intense electric fields, A., 681.
- Fowler, S., and Edser, E., [production of bituminous] paints, (P.), B., 903.
- Fowles, G., action of copper on sulphuric acid, A., 602.
- Fox, C. J. J., fluid composition [metallic soap] applicable as a covering, colouring, or dispersing agent, etc., (P.), B., 456.
- Fox, E. L. See Benedict, F. G.
- Fox, F. W., determination of carbamide in blood, A., 539.
- Fox, G. E., and Standard Oil Development Co., transference of gases and [hydrocarbon] vapours, (P.), B., 326.
- Fox, G. W. See Duffendack, O. S.
- Fox, H., acetification of vinegar, (P.), B., 686.
- Fox, J. J. See Buchan, J. L., Ellis, B. A., and Robertson, (Sir) R.
- Fox, J. M. C. See Menzies, R. C.
- Fraenkel, P., alcohol content of blood and organs. I., A., 1392.
- Fränkel, J. See Magidson, O.
- Fränkel, S., and Prinz, H., tryptoporphyrin, A., 82.
- Fraenkel, W., and Nowack, L., age-hardening of silver-copper-cadmium alloys, B., 643.
- Fraenkel, W., and Schaller, P., age-hardening silver[—copper] alloys, B., 643.
- Fraenkel, W., Wengel, E., and Cahn, L., rate of reactions between two liquid phases, A., 717.
- Fraenkel, W. See also Lorenz, R.
- Fränkl, M., cooling of air and gases for condensing vapours therefrom, (P.), B., 697.
- Fränz, H. See Bothe, W.
- France, A., washing of minerals by means of liquid streams, (P.), B., 320.
- sifting or screening apparatus for the classification of ores, etc., (P.), B., 373.
- plants for washing coal or other minerals, (P.), B., 737, 844.
- France, W. G. See Bennett, G. W., Eckert, T. S., and Keenen, F. G.
- Franciosi, G., antiseptic material for the preservation of wood, (P.), B., 896.
- Francis, A. G., and Parsons, A. T., condition of radium salts after storage in sealed glass tubes, A., 1169.
- Francis, A. W., free energies of some hydrocarbons, A., 478.
- free energies of some alcohols, A., 479.
- Francis, F., triacetoneamine hydrate, A., 49.
- Francis, W., and Wheeler, R. V., reactions between oxygen and coal, B., 145.
- Franck, H., and Heimann, H., calcium cyanamide. II. Equilibrium of the reaction $\text{CaC}_2 + \text{N}_2 = \text{CaCN}_2 + \text{C}$, A., 132.
- Franck, J., recombination of ions and electrons, A., 453.
- energy stages of atoms and molecules and their relationship to chemical union, A., 569.
- Franck, J., and Gibson, G. E., extinction of the D-lines in flames by [the addition of] chlorine compounds, A., 1293.
- François, M., notation of mercurammonium salts, A., 109.
- preparation of mercurammonium iodide in the crystalline state, A., 603.
- determination of chloral in chloral syrup, B., 243.
- François, M., and Seguin, (Mlle.) L., determination of technical sodium diborate, B., 87.
- determination of sodium borate, B., 156.
- analysis of insecticides; dry products: naphthalene; naphthalene and camphor; blue powders containing strychnine; red corn, B., 382.
- analysis of insecticides, B., 550.
- analysis of insecticides; liquid insecticides miscible with water: alcohol, mercury and formaldehyde, picric acid, nicotine, and garlic essence, B., 694, 724.
- Françon, M. See Richards, T. W.
- Frank, A. R., and Caro, N., production of hydrocyanic acid, (P.), B., 746.
- Frank, A. R. See also Caro, N.
- Frank, F., and Kemp, W. W., treatment of carbonaceous and other materials, (P.), B., 662.
- Frank, F. See also Meyerheim, G.
- Franke, A., production of red lead paints and the like coating compositions, (P.), B., 275.

- Franke, *Adolf*, and Gigerl, *E.*, benzylidene derivatives of glycols, A., 759.
 Franke, *Adolf*, and Stern, *R.*, glycol from α -methyl-*n*-butaldehyde and benzaldehyde, A., 753.
 Franke, *K.* See Abderhalden, *E.*
 Franke, *K. W.*, and Willaman, *J. J.*, measurement of hydrogen-concentration in the control of pulp and paper manufacture, B., 186.
 Franke, *K. W.* See also Nord, *F. F.*
 Franke, *W.* See Wieland, *H.*
 Frankel, *M.*, natural organic compounds of colloidal character. II. Degree of association and reactivity of gelatin solutions, A., 535.
 colloidal state of gelatin solutions and the effect of temperature changes, A., 1092.
 Frankenburger, *W.*, Andrussov, *L.*, and Dürr, *F.*, complex lithium, iron, and nitrogen compound, A., 1341.
 Frankfurt, *M.* See Haller, *R.*
 Frankfurter, *W.* See Ries, *E.*
 Frankfurter Gas-Gesellschaft, and Reichard, *F.*, utilising waste heat in gas-producing plant, (P.), B., 778.
 Frankfurter Gas-Gesellschaft, Tillmetz, *F. P.*, and Schumacher, *E.*, cooling of coke or like material and utilising the sensible heat thereof, (P.), B., 394.
 apparatus for utilising the heat evolved in gas generators, (P.), B., 806.
 Franklin, *M. C.*, and Short, *W. F.*, acetoacetic ester condensation, A., 505.
 Franklin, *R. G.* See Synthetic Ammonia & Nitrates, Ltd.
 Franks, *R.*, Field, *B. E.*, and Haynes Stellite Co., manufacture of [nickel] alloy, (P.), B., 609, 863.
 Franks, *R.*, and Oxweld Acetylene Co., welding rod, (P.), B., 528.
 Franquet, *R.* See Colin, *H.*
 Franssen, *A.*, spectrographic study of cyanamide; ultra-violet absorption spectra of cyanamide, dipropylcyanamide, and dipropylcarbodi-imide, A., 458.
 Frantz, *H. W.* See Westwater, *W.*
 Franz, *H.* See Bothe, *W.*
 Franz, *T.*, separation of minerals from one another and removal of gangue from flotation froth, (P.), B., 21.
 Franzen, *G.*, alcohol. VI. Influence of alcohol on the action of pepsin, A., 1054.
 Fraps, *G. S.*, digestibility and production coefficients of poultry feeds, B., 586.
 soils of Bowie, Denton, Freestone, and Red River Counties, B., 684.
 Frary, *F. C.* See Aluminum Co. of America, and Doerschuk, *V. C.*
 Frasch, *H. A.*, reclaiming waste mineral lubricating oil containing soaps, (P.), B., 81.
 Fraser, *A.*, and Rissik, Fraser & Co., Ltd., manufacture of articles from ebonite and like material, (P.), B., 378.
 Fraser, *E. H.*, concentration of ore from the Read-Rosebery mines of Electrolytic Zinc Co. of Australasia, Ltd., B., 195.
 drying and roasting of zinc [sulphide] concentrate at Zeehan Works of Electrolytic Zinc Co. of Australasia, Ltd., B., 195.
 Fraser, *H. A.*, Price, *W. L.*, and Hetherington, *J.*, separation of oil from oil-laden gas, (P.), B., 884.
 Fraser, *L. McG.*, grinding mills, (P.), B., 352.
 Fraser, *L. McG.*, and Smith, *W. S.*, manufacture of varnishes, lacquers, etc., (P.), B., 531.
 Fraser, *W. G.*, [conical-type] refining engines for use in pulp refining, (P.), B., 601.
 Frayne, *J. G.*, stages in the excitation of the spectrum of indium, A., 1297.
 Frazer, *J. C. W.*, and Patrick, *W. A.*, measurement of osmotic pressures, A., 14.
 Frazier, *C. E.*, melting furnace, (P.), B., 645.
 Freas, *R.*, and Provine, *E. A.*, preparation of phenolsulphone-phthalein and bromophenol[sulphone]phthalein, A., 1003.
 Fréchou, *E. M. E.*, purification of hard water by base-exchanging bodies, (P.), B., 214*.
 Fred, *E. B.* See Anderson, *J. A.*, Parmele, *H. B.*, and Peterson, *W. H.*
 Fredenhagen, *K.*, electrolytic solution tensions and the ionic state. III. Solubility and solvent forces, solvent and ionising powers, A., 1316.
 Frederick Iron & Steel Co. See Raun, *P. H.*
 Fredericksen Co. See Schupp, *A. A.*
 Frederikse, *W. A.*, and Verweel, *H. J.*, crystal structure of potassium chloroplatinate, A., 1313.
 Frederikse, *W. A.* See also Smits, *A.*
 Freed, *S.*, magnetic susceptibilities of positive vanadium ions, A., 9.
 Freeman, *I. M.*, spectrum of the corona, A., 210.
 Freeman, *M.* See Holden, *H. F.*
 Freeman, *N. H.*, temperature-controlling devices for furnace chambers and other apparatus, (P.), B., 249.
 treatment of oil-bearing shales and kindred oil-bearing minerals, (P.), B., 561.
 Freeman, *P. J.*, long-time tests of concrete using various coarse aggregates, B., 92.
 Freese, *H.*, magnetisability of thin films of manganese, A., 468.
 Frei, *J. K.* See Brass, *K.*
 Freiberg, *G. W.*, manufacture of acetone and butyl alcohol [by fermentation], (P.), B., 653.
 Freiburger, *M.*, addition of pyridine to dye-vats, B., 189.
 Freiburger, *M.*, and Holtmann, *A.*, preparation of colour pastes for colour printing, (P.), B., 365*.
 Freier Grunder Eisen- & Metallwerke Ges.m.b.H., cupola furnaces, (P.), B., 715.
 Freiman, *A.*, and Sugden, *S.*, the parachor and chemical constitution. VII. Semipolar double bonds, A., 403.
 French, *C. C.*, effect of neutral salts on certain catalytic decompositions, A., 487.
 French, *H. J.*, Cross, *H. C.*, and Peterson, *A. A.*, creep in five steels at different temperatures, B., 673.
 French, *R. W.*, and Holmes, *W. C.*, production of bactericidal and therapeutic agents; [biological stains], (P.), B., 769*.
 French, *R. W.*, Holmes, *W. C.*, and Keohan, *W. F.*, preparation of biological stains, bactericidal agents, etc., (P.), B., 328.
 French, *S. J.*, and Kahlenberg, *L.*, nature of gas-metal electrodes, A., 1330.
 French Battery Co. See McCabe, *E. H.*
 Frenkel, *G.* See Ostwald, *Wolfgang.*
 Frenkel, *J.* (Leningrad), wave mechanics of rotating electrons, A., 570.
 wave mechanical theory of metallic conduction, A., 577.
 theory of the magnetic and electrical properties of metals at 0° Abs., A., 823.
 application of the Pauli-Fermi electronic gas theory to the problem of cohesive force, A., 1070.
 Frenkel, *J.*, and Mirolubov, *N.*, wave-mechanical theory of metallic conductivity, A., 933.
 Frenkel, *J.*, and Semenov, *N.*, kinetics of the dissociation of diatomic molecules, A., 597.
 Frenkel, *J.* (Moscow), ripening of viscose, B., 256.
 Frenzel, *R.*, manufacture of welded high-pressure vessels from vanadium steel, (P.), B., 58.
 Fréreljacque, oxyquinine and peroxyquinine, A., 79.
 Freri, (*Signa*) *M.* See Matta, *G.*, and Quilico, *A.*
 Frerich, *R.*, dependence of the operation of the Thomas converter on the temperature curve, B., 818.
 Frers, *J. N.* [with Leopold, *F.*], constitution of solid electrolytes. II. Cuprous bromide, A., 352.
 Fresenius, *L.*, Schröder, *K.*, and Frommes, *M.*, determination of fluorine in zinc blende, B., 302.
 Freudenberg, *H.* See Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.
 Freudenberg, *K.*, lignin and cellulose. VI. Methylcellulose, A., 743.
 system of the simple sugars and α -substituted fatty acids, A., 1118.
 Freudenberg, *K.*, and Braun, *E.*, lignin and cellulose. II. Methylcellulose, A., 399.
 Freudenberg, *K.*, and Dirscherl, *W.*, acetylation of insulin, A., 675.
 insulin. II. Acetylation of insulin, A., 675.
 Freudenberg, *K.*, Dürr, *W.*, and Hochstetter, *H. von*, acetone [isopropylidene] sugars. XIII. Hydrolysis of certain disaccharides, glucosides, and isopropylidene sugars, A., 1222.
 Freudenberg, *K.*, Harder, *M.*, and Markert, *L.*, lignin and cellulose. VII. Lignin, A., 1227.
 Freudenberg, *K.*, and Lux, *A.*, steric series. IX. Configuration of the monosubstituted propionic and succinic acids, A., 735.
 Freudenberg, *K.*, and Markert, *L.*, steric series. VIII. Configuration of α -bromopropionic acid, A., 153.
 Freudenberg, *K.*, Toepfer, *H.*, and Andersen, *C. C.*, acetone [isopropylidene] sugars. XV. Syntheses of disaccharides, A., 1223.

- Freudenberger, K., Wolf, Anton, Knopf, E., and Zaheer, S. H., acetone [isopropylidene] sugars. XIV. Syntheses of further di- and tri-saccharides from galactose, dextrose, and mannose, A., 1222.
- Freudenberger, H. See Staudinger, H.
- Freuler, R. See Karrer, P.
- Freund, E. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Freund, J., alcohol-soluble specific substances of *Bacillus diphtheriae* and of *Streptothrix*, A., 204.
- Freund, R., working with compressed chlorine gas in practice, B., 157.
- Freundler, P., formation of iodine in *Laminaria*, A., 1407.
- Freundlich, H., structure and formation of colloidal particles, A., 123.
- Freundlich, H., and Abramson, H. A., thixotropy of gelatin solution, A., 238.
- cataphoretic migration velocity of large particles in sols and gels. II., A., 587.
- Freundlich, H., and Lindean, G., influence of hydrogen-ion concentration on the coagulation value of ferric oxide sol., A., 475.
- Freundlich, H., and Rawitzer, W., thixotropy of concentrated ferric oxide sols, A., 126.
- Freundlich, H., and Schnell, A., determination of hydration from surface tension, A., 582.
- Freundlich, H., and Slettmann, G. V., influence of capillary activity on cataphoresis and coagulation, A., 17.
- Traube's rule in connexion with hydrotropy [influence of salts of alkylbenzenesulphonic acids on the solubility of benzoic and phthalic acids], A., 118.
- Freundlich, H., and Soellner, K., influence of slightly soluble substances on the thixotropy of ferric oxide sols, A., 586.
- influence of organic substances on the thixotropy of ferric oxide sol, A., 1033.
- Frevert, H. L. See Richards, T. W.
- Frevert, H. W. See Katz, S. H.
- Frey, B., spark potentials in nitrogen, A., 337.
- Frey, C. N. See Hoffman, C.
- Frey, E. K., and Kraut, H., new circulation hormone and its action. III., A., 1057.
- Frey, E. K. See also Kraut, H.
- Frey, F. E., and Smith, D. F., thermal decomposition of ethane, ethylene, propane, and propylene, A., 1211.
- Frey, F. E. See also Yant, W. P.
- Frey, R. W., Jenkins, L. J., and Joslin, H. M., comparison of methods of hydrolysis in determining nitrogen in leather, B., 829.
- Frey, R. W., and Reed, H. C., practical glass extractor [for tanning materials], B., 420.
- Frey, R. W. See also Clarke, I. D., and Veitch, F. P.
- Friani, J. B., crystal structures of two intermetallic compounds [of copper with magnesium and with aluminium], A., 109.
- Fricke, H., and Morse, S., chemical action of Röntgen rays on dilute ferrous sulphate solutions as a measure of dose, A., 602.
- Fricke, R., solution equilibria between crystalline zinc hydroxide and sodium hydroxide, A., 711.
- crystalline aluminium hydroxide of von Bonsdorff, A., 1199.
- Fricke, R., and Havestadt, L., free energy and heat of dilution of concentrated solutions, A., 134.
- crystal structure of beryllium sulphate tetrahydrate, A., 463.
- crystal structure of mercuric cyanide, A., 821.
- Fricke, R., and Röhke, F., complex compounds of beryllium. VI., A., 493.
- Fricke, K., manufacture of *p*-methylaminophenol, (P.), B., 846.
- Fridli, R., determination of arsenic in cadavers, A., 1155.
- fatal thallium poisoning, and determination of thallium in cadavers as thallous iodide, A., 1156.
- Friedberger, E., and Seidenberg, S., feeding rats with oils and fats, A., 1398.
- Friede, H. See Weinland, R.
- Friedel, G., uniaxial optically active crystals, A., 817.
- Friedemann, T. E., determination of lactic acid in sugar solutions decomposed by alkali, A., 272.
- Frieden, A., Bacon, R. F., and Hirsch, A., recovery of camphor [from celluloid], (P.), B., 401.
- Friedrich, E., electrolytic conduction of solids, A., 823.
- Friedrich, E., and Radio Corporation of America, glow cathode and electron tube containing same, (P.), B., 416.
- Friedländer, H., manufacture of insulating paper, paste-board, card-board, and moulded articles formed from fibrous masses, (P.), B., 638.
- Friedländer, J., and Salvatore, E., occurrence of hydrocarbons in volcanic rocks, A., 1210.
- Friedländer, L., shortening of the time of cooking in the Mitscherlich process [of paper manufacturer], B., 477.
- Friedlein, F., quantitative metabolism of paratyphoid-*B* bacillus, *B. coli*, and *B. pyocyaneus*, A., 674.
- Friedman, E. B. See Barkenbus, G.
- Friedolsheim, A. von. See Reihlen, H.
- Friedrich, A., determination of mol. wts. by the Barger-Rast method, A., 985.
- lignin. IV. Soluble pinewood lignin obtained by different methods, A., 1119.
- Friedrich, H. See Fischer, Hans.
- Friedrichs, F., drying apparatus, A., 983.
- manometer for vacuum distillation, B., 429.
- Friedrichs, J., extraction apparatus for liquids, A., 389.
- Friend, J. A. N., experiments on transmutation, A., 720.
- resistance of over-stressed wrought irons and carbon steels to salt-water corrosion, B., 407.
- relative corrodibilities of ferrous and non-ferrous metals and alloys. I. Results of four years' exposure in the Bristol Channel, B., 410.
- Friend, J. A. N., and Pounder, D. W., lithium sulphite and some derivatives, A., 1103.
- Friend, J. A. N., and Round, A. A., neodymium selenate, A., 972.
- Friend, J. A. N., and Smirles, W. N., solubility of potassium ferricyanide in water between 0° and 100°, A., 1086.
- Fries, A. A., by-products of chemical warfare, B., 839.
- Fries, F. See Imhoff, K.
- Fries, K., and Oehmke, G., quinonitroles and quinamines, A., 888.
- Fries, K., Pense, W., and Peeters, O., *lin*-benzo-*p*-thiazino-quinones, A., 905.
- Friese, A. See Hess, K.
- Friesenhahn, P., washing, wetting, and cleaning agents, (P.), B., 308.
- manufacture of soaps, (P.), B., 375.
- Frieser, L., and Seewald, O., production of a continuous floor for linoleum, triolino, etc., (P.), B., 607.
- Friesz, J., and Szabó, G., lipins of the blood-plasma in disease, A., 1048.
- Frigamin G.m.b.H. [electrolyte for] voltaic cells, (P.), B., 415.
- Frilley, M., spectrography of γ -rays by crystalline diffraction, A., 215, 339, 819.
- Frings, H., acetification apparatus or vinegar generators, (P.), B., 833.
- Frink, R. L., melting glass, etc., (P.), B., 606.
- manufacture of sheet glass, (P.), B., 606.
- Frisch, K. von, sense of taste in bees. II., A., 669.
- Frisch, R., device for measuring spectrum photographs, A., 935.
- Frisch, S., spark spectrum of sodium, A., 807.
- Frisch, S. [with Ferchmin, (Frl.) A.], spark spectrum of sodium, A., 338.
- Frisch, S. See also Glaser, E.
- Frischer, H., production of volatile inorganic acids, (P.), B., 90.
- apparatus for making solutions [from materials partly insoluble], (P.), B., 802.
- Fritz, F., constitution of elaeostearic acid, B., 236.
- sp. gr. of linseed oil, B., 825.
- Fritz, G., effect of pituitary extracts on blood-sugar, A., 799.
- Fritz, I. C., cutting cast iron with a flame, B., 18.
- Fritzmann, E., osmium. II. Determination, A., 388, 983*.
- osmium. III., A., 723.
- complex compounds of platinum and palladium with organic sulphides, A., 745.
- distillation of osmium tetroxide in aqueous solution, and oxidation of osmium and its compounds, A., 976*.
- Fritzsche, H. See Society of Chemical Industry in Basle.
- Fritzsche, J., manufacture of safety fuses for use in mining and blasting, (P.), B., 550.
- Fritzweiler, H. See Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges.
- Frohberg, A., economy of the sulphite-cellulose cooking process, B., 120, 187.
- Froidevaux, J., cooking of foods under pressure, B., 689.
- Frolich, P. K., Fenske, M. R., and Quiggle, D., catalysts for the formation of alcohols from carbon monoxide and hydrogen. I. Decomposition of methyl alcohol by catalysts composed of copper and zinc, A., 1112.
- Frolich, P. K., and Lewis, W. K., synthesis of alcohols higher than methyl alcohol from carbon monoxide and hydrogen, B., 397.

- Frolich, P. K., Spalding, H. B., and Bacon, T. S., destructive distillation of wood and cellulose under pressure, B., 178.
- Frolich, P. K. See also Lewis, W. K.
- Fromageot, C., oxidation of organic molecules. II., A., 25.
- non-activity of infra-red radiation in thermal acceleration of reduction of ceric ions by acetaldehyde in acid solution, A., 255.
- methods of determining the hydrogen-ion concentration of soils at closely adjacent points, B., 538.
- Fromherz, H. See Fajans, K.
- Fromm, E., Kapeller, R., and Taubmann, I., derivatives of glycerol containing sulphur, A., 868.
- Frommer, M. See Hahn, F. L.
- Frommes, M. See Fresenius, L.
- Fromont, G., electric accumulators, (P.), B., 199.
- Frost, G. B. See Davis, C. P.
- Frost, J. G. G., and National Smelting Co., treatment of aluminium screenings, etc., (P.), B., 20.
- Frost, W. See Lieb, H.
- Frowein, F., system potassium nitrate-calcium nitrate-sodium nitrate-water, A., 367.
- Frowein, F. See also Wolff & Co.
- Fruehan, A. G. See Lenher, V.
- Frühling, H. G. See Bloch, L.
- Frühling, S. See Niementowski, S.
- Frumkin, A., and Donde, A., measuring P.D. by means of dropping electrodes, A., 958.
- Frumkin, A., Donde, A., and Kulvarski, R., surface layer. VI. Differences of potential on the border between air and solutions of some benzene derivatives, A., 946.
- Frumkin, A., and Gorodetskaja, A., electrocapillary phenomena in amalgams. I. Thallium amalgams, A., 1193.
- capillary phenomena and film formation in liquid gallium, A., 1193.
- Frumkin, A. See Bach-Nikolajeva, N.
- Fruth, H. F., low-voltage arcs in iodine, A., 568.
- Fry, A., and Krupp Akt.-Ges., F., electric resistance furnace adapted for heating by nitrogenation, (P.), B., 306*.
- Fry, H. S., and Otto, E. [with Schulze, E. L.], liberation of hydrogen from carbon compounds; interaction with fused alkali hydroxides of: III. Monohydric alcohols and esters. IV. Glycol and glycerol. V. Dextrose, laevulose, sucrose, and cellulose, A., 615.
- Fryer, P. J., and Catalpo, Ltd., hydrolysis, and particularly splitting, of oils and fats, (P.), B., 202*.
- Fryer, P. J. See also McDougall & Yalding, Ltd.
- Fuchs, H. J., apparatus, A., 147.
- Fuchs, H. J. See also Falkhausen, M. von.
- Fuchs, K., preparation of mercury dimethyl, A., 994.
- Fuchs, K., and Grauaug, E., heterocyclic dyes, A., 430.
- oximes of *N*-methyl-2-benzthiazolone and *N*-methyl-2-quinolone, A., 1385.
- Fuchs, K., and Katscher, E., symmetrical dichlorodimethyl sulphate, chloromethoxysulphonyl chloride, and similar derivatives of formaldehyde, A., 43.
- Fuchs, K. See also Margosches, B. M.
- Fuchs, O., dispersion of carbon dioxide from 2300 to 130,000 A., A., 460.
- Fuchs, O., and Wolf, K. W., residual rays, natural frequencies, and infra-red dispersion, A., 460.
- Fuchs, O. See also Holzverkohlungs-Ind. A.-G.
- Fuchs, W., physical structure of pine lignin, A., 334.
- true lignin. I. Acetylation of pine wood, A., 743.
- differentiation between lignite and coal, B., 145.
- alleged discovery of "caramelic acid," B., 146.
- new theories of coal formation, B., 554.
- analytical characterisation of coals, B., 554.
- so-called "nitrohumic" acid, B., 555.
- relation between humic acid and lignin, B., 803.
- comparative action of bromine on cellulose, lignin, wood, and coals, B., 916.
- Fuchs, W., and Horn, O., true lignin. II. Action of bromine on acetylated pine wood, A., 1361.
- Fudge, J. F. See Pierre, W. H.
- Fuelite Co., Ltd. See Strafford, W. W.
- Fürth, J., and Landsteiner, K., precipitable substances derived from *Bacillus typhosus* and *B. paratyphosus* B., A., 798.
- Fürth, R., new quantum statistics of distribution phenomena, A., 817.
- Fujii, I., action of some convulsion-producing poisons on blood-sugar, lactic acid, and alkali reserve, A., 1053.
- Fujii, M., preparation of flavouring, nourishing, and similar substances from proteins, carbohydrates, or other animal or vegetable matter, (P.), B., 34.
- neutralisation of acidity or alkalinity of decomposition products [foods] by glutamic acid or its salts, (P.), B., 872.
- Fujimaki. See Saiki, Shimoda, and Sugimoto.
- Fujimoto, G. See Dean, A. L.
- Fujimoto, M. See Kita, G.
- Fujio, C., polymerisation of acetylene. I., A., 732.
- Fujioka, Y., and Nakamura, S., Stark effect for the spectra of silver, copper, and gold, A., 2, 340*.
- Fujisawa, T., manufacture of active carbon from soot, (P.), B., 394.
- Fujise, S., stereoisomerism of S-hydroxydecahydroquinoline and its derivatives, A., 898.
- decahydroquinoline derivatives. III. Hofmann degradation of decahydroquinoline, A., 1022.
- decahydroquinoline derivatives. IV. Hofmann degradation of 2-methyloctahydroindole, A., 1258.
- Fujita, A., effect of carbon monoxide on the metabolism of leucocytes, A., 1269.
- metabolism of body-cells, A., 1276.
- Fujita, N. See Kawamura, J.
- Fujita, Y. See Kotake, M.
- Fujiwara, T., Laue photograph taken with convergent X-rays, A., 1175.
- Fukagawa, T. See Tomita, M.
- Fukami, M., and Yokojima, N., rearrangement of toluenediazo-aminobenzene in aniline solution, A., 879.
- Fukuchi, and Watanabe, composition of "Kochi-stone," B., 367.
- Fukuda, Masao, constituents of *Typha angustata*, Bory et Chaub, A., 560, 1063*.
- Fukuda, Mitsuharu, reversed spectra of metals produced by explosion under increased pressure, A., 2.
- Fukushima, H., arrangement of micro-crystals in the banded "supposed argonite (Arareishi)," A., 1175.
- Fukushima, M. See Shibata, Z.
- Fukushima, S. See Matsui, M., and Suzuki, T.
- Fulcher, F. C., and Beldam, W. R., straining or filtering apparatus, (P.), B., 659*.
- Fulghum, B. W. See Schumacher, R. H.
- Fulghum, E. W. See Schumacher, R. H.
- Fulks, E. B., and American Creosoting Co., preservation of wood, (P.), B., 159.
- Fuller, T. S., and General Electric Co., treatment of nickel-copper-aluminium alloys, (P.), B., 609.
- Fuller, T. S. See also British Thomson-Houston Co., Ltd.
- Fulmer, E. I., and Huesselmann, B., production of a yeast-growth stimulant by heating media under pressure, A., 674.
- Fulmit Ges.m.b.H. See Seyffert, E.
- Fulton, C. C., tests for morphine and related alkaloids, A., 1386.
- Fulton, W. F., and Palmer Corporation, apparatus for the production of carbon black, (P.), B., 290.
- Fulweiler, W. H., and U.G.I. Contracting Co., determination of naphthalene in illuminating gas, (P.), B., 701.
- purification of gases, (P.), B., 778.
- Fulweiler, W. H. See also Barnes, J., Humphreys & Glasgow, Ltd., and Sperr, F. W., jun.
- Funcke, F. See I. G. Farbenind. A.-G.
- Funger, A., ageing phenomena of sensitised material, B., 212.
- Funk, A. See Spitalski, E.
- Funk, C., vitamin-B, A., 206.
- reagents for the chemical fractionation of biologically active raw material, A., 208.
- Funk, C., Dubin, H. E., and Metz Laboratories, Inc., H. A., production of [stabilised] vitamins, (P.), B., 34.
- Funk, C. See also Elbinger, H.
- Funk, H., and Niederländer, K., action of niobium and tantalum pentachlorides on organic compounds. I. and II., A., 408, 876.
- Funk, I. B., toning colours in fabrics, (P.), B., 365.
- Funk, K. See Kolodziejska, Z.
- Funk, N. E., treatment of lubricating oils, (P.), B., 6.
- Funk, V., determination of oxygen in illuminating gas, B., 434.
- Funke, A. See Fourneau, E., and Wagner, Hermann.
- Funke, G. L., formation of diastase by *Aspergillus niger*, A., 335.

- Funke, K. See Zinke, A.
 Fnria, M. See Migliacci, D.
 Furihata, M. See Nagai, Y.
 Furman, N. H., simple bimetallic electrode systems for potentiometric titrations. I. Application of platinum-gold amalgam system to certain oxidation-reduction titrations. II. The use of the platinum-gold electrode system, A., 383.
 ceric sulphate in volumetric analysis. I. Preparation and stability of solutions of ceric sulphate containing free sulphuric acid. II. Potentiometric study of the reactions between ceric and ferrous or oxalate ion; application to the standardisation of ceric solutions. III. Potentiometric determination of cerium, A., 499.
 ceric sulphate in volumetric analysis. IV. Potentiometric titration of vanadyl ion alone or in presence of ferric and chromic ions; stability of vanadyl solutions, A., 860.
 Furman, N. H., and Wilson, E. B. jun., simple continuous-reading method of electrometric titration with bimetallic electrodes, A., 382.
 Furman, R. W. See Donaldson, W.
 Furnas, C. C., and Brown, G. G., equilibria in the reduction of ferric oxide, B., 449.
 Furness, G. C., augmenting the output of [dry] electric cells, (P.), B., 901.
 Furry, M. See Gilman, H.
 Furter, M. See Kuhn, R.
 Furuhashi, Y., cetacea. XXVIII. Total urinary base, A., 84.
 Furuhashi, Y., and Yazawa, T., cetacea. XXX. Function of the liver, A., 84.
 Fuseya, G., and Murata, K., addition agents in electrodeposition. V. Application of the complex cation theory of crystalloidal addition agents to base metals. I., B., 611.
 Fuseya, G., and Yumoto, R., addition agents in electrodeposition. V. Application of the complex cation theory of crystalloidal addition agents to base metals. II., B., 611.
 Fuson, R. C., cleavage of ethyl $\alpha\alpha'$ -dibromoadipate by diethylamine, A., 738.
 Fuson, R. C. See also Kohler, E. P.
 Futagami, T. See Nagaoka, H.
- G.
- Gaal, B., mucilage of the rhizome of *Polygonatum officinale*, All., A., 1163.
 evaluation of ergot of rye, B., 873.
 Gábor, F. See Klein, P.
 Gabriel, A., and Tanner, H. G., test for borates, A., 724.
 Gabriel, A. See also Williams, R. J.
 Gabriel, C. L., Bogin, C., and Commercial Solvents Corporation, *n*-butyl lactate, (P.), B., 561.
 nitrocellulose lacquer composition, (P.), B., 762.
 Gabriel, G. E., assay of low-grade tin ores and tailings, B., 862.
 Gabriel, G. L., butanol [butyl alcohol] fermentation process, B., 871.
 Gabriel, L. G. See Asphalt Cold Mix, Ltd.
 Gabrielsen, Lange's ring-test for acetone in urine, A., 914.
 Gadamer, J. [with Wachsmuth], how do alkaloids originate? A., 188.
 Gadamer, J., Späth, E., and Mosettig, E., two new alkaloids from *Corydalis cava*, A., 310.
 Gadaskin, I. D., transformation of benzene in the organism and a method for the determination of benzene, A., 1155.
 Gadd, C. H., determination of the p_H values of turbid soil and other solutions, B., 381.
 Gaddum, J. H., thyroxine and allied substances, A., 555.
 Gadowska, H. See Wierzechowski, M.
 Gadreau, M., alkaloid ferrocyanides and their analytical applications, A., 314.
 Gaebler, O. H., and Keltch, A. K., blood-creatinine, A., 437.
 Gaebler, O. H. See also Gatewood, W. E.
 Gädke, W. See Diels, O.
 Gaertner, A., distillation or coking of coal, (P.), B., 180.
 conversion of coal into hydrocarbons, (P.), B., 471.
 Gärtner, H. See Daimler, K.
 Gaertner, H. R. von, and Machatschki, F., thomsonite from the basalt of Disko, Greenland, A., 731.
 Gäumann, E., seasonal variations in the carbohydrate content of pine and fir stems, A., 334.
- Gagarina, E. D., and Jankovsky, V. D., system catalase-anticatalase in blood and various animal organs under different physiological and pathological conditions, A., 327.
 catalase, anticatalase, and phylocatalase in animal tissue under various physiological and pathological conditions. I. Determination of catalase in blood, A., 1392.
 Gage, C. H., and Searles, L. W., electric furnace, (P.), B., 528.
 Gagnaux, L., maintaining or restoring the electric capacity of the negative plates of lead accumulators, B., 490.
 Gahl, R., and Anderson, B., sulphate-reducing bacteria in Californian oil waters, A., 1285.
 Gahlert, F. J., treatment of artificial silk yarns after spinning, (P.), B., 228, 364*.
 Gahrz, G. See Buttenberg, P.
 Gail, J. B., and Adam, N., water purifier, (P.), B., 770*.
 Gaillot, P. See Valenr, A.
 Gaines, J. M., jun. See Herty, C. H., jun.
 Gainsborough, H. See Gardner, J. A.
 Gaissner, F. C., catalytic action of mineral waters, A., 600.
 Gaisses, F. See Württembergisches Statistisches Landesamt.
 Galamini, A., and Bracaloni, L., modification of the Widmark micro-method for the determination of alcohol in blood, A., 1151.
 Galassi, M., chemical nature of glycyrrhizin, A., 68.
 Gale, H. G., Monk, G. S., and Lee, K. O., wave-lengths in the secondary spectrum of hydrogen, A., 1166.
 Galecki, A., nuclear silver sols free from protective colloids, A., 473.
 Galecki, A., and Kempf, R., silver hydrosols with particles of uniform size, A., 584.
 Galecki, A., and Spychalski, R., action of light on silver hydrosols containing particles of uniform magnitude, A., 1321.
 Galehr, O., and Plattner, F., fate of acetylcholine in blood. I. and II., A., 911.
 Galibourg, See Guillet, L.
 Galibourg, J., use of nickel in cast iron and steel, B., 126.
 Galimberti, L., and Zoccheddu, E., rapid determination of magnesium, A., 980.
 Galinou, G. P. See Allègre, C.
 Gall, D. C., optical pyrometer, (P.), B., 611.
 Gall, H., ruthenium [chlorides], A., 1202.
 Gall, H., and Lehmann, G., bivalent ruthenium, A., 142.
 oxidation of alkali cyanides by permanganate, A., 624.
 [ruthenium chlorides], A., 975.
 Gall, H. See also Manchof, W.
 Gallagher, A. H., stabiliser and plaster composition containing the same, (P.), B., 896.
 Gallais, P. See Lévy, (Mlle.) J.
 Gallay, W. See Whitby, G. S.
 Gallego, M. See Madinaveitia, A.
 Galli, P. See Passerini, N.
 Gallie, G., Porritt, B. D., and British Rubber & Tyre Manufacturers Research Association, apparatus for removing large-sized particles and aggregates from certain finely-divided powders, etc., (P.), B., 839*.
 Gallo, G., chemical utilisation of gypsum, B., 12.
 reduction of metallic oxides by hydrogen. III. Nickel oxide. IV. Cobalt oxide, B., 56.
 Gallotti, M. See Charrier, G.
 Galloway, A. E. See Brown, R. L., and Davis, J. D.
 Galloway, L. D. See Thaysen, A. C.
 Gallup, W. D., digestibility of proteins of cotton seed, A., 324.
 value of iron salts in counteracting toxic effects of gossypol, A., 794.
 development of cotton bolls and the rate of formation of gossypol in the cotton seed, A., 1060.
 relation of *d*-gossypol to the toxicity of some cotton-seed products, B., 171.
 Galy, A. See Morel, A.
 Gambarian, S., reaction between aluminium and bromoform, A., 269.
 Gamerow, S. M. See Goldberg, J. M.
 Gams, A. See Society of Chemical Industry in Basle.
 Gandrud, B. W. See Lee, O.
 Gane, R., and Ingold, C. K., electrometric titration curves of dibasic acids. I. Normal acids, A., 846.
 electrometric titration curves of dibasic acids. II. β -Substituted glutaric acids, A., 1083.
 Ganesan, A. S., spark spectrum of neon, A., 1295.
 ultra-violet absorption bands of oxygen, A., 1296.

- Gann, J. A., and Dow Chemical Co., magnesium alloy, (P.), B., 20.
light-metal [magnesium-tin] alloy, (P.), B., 758.
- Gannon, G. R., chemical examination of Finger limes (*Citrus australasica*), B., 545.
- Ganossis, B., deflocculation and plasmolysis of soils, B., 458.
Ganossis, B. See also Dumont, J.
- Gapon, E. N., diffusion coefficients and ionic mobilities, A., 134.
theory of hydrates, A., 365.
theory of the liquid state, A., 470.
hydration of ions and molecules, A., 473.
internal pressure and thermal vibrations of solid substances, A., 697.
stability of disperse systems, A., 949.
- Garcia, F., pharmacological differentiation of the *Solanaceae* alkaloids, A., 1155.
mobilisation of mercury from sparingly soluble dépôts by halogen salts, A., 1156.
- Garcia, T. See Osanto, M.
- Garcin, R. See Loeper, M.
- Gard, E. W., Aldridge, B. G., and Multer, H. J., apparatus for separating liquid containing a dispersed phase of another liquid, (P.), B., 352.
- Gardano, G. See Mezzadrolì, G.
- Gardener, C. B. See Horner, A. P.
- Gardiner, E. W. See Gibson, G. E.
- Gardiner, H. C., preservation of timber, (P.), B., 369.
- Gardiner, W. C., and Hulett, G. A., voltaic hydrogen generator, B., 822.
- Gardiner, W. C. See also Dorrance, R. L.
- Gardner, C. E., apparatus for grinding or comminuting rubber and other materials, (P.), B., 772.
- Gardner, D., paints, enamels, japans, etc., (P.), B., 308*.
treatment of dyes, (P.), B., 599.
dyeing with vat dyes, (P.), B., 601.
manufacture of high-purity carbon, (P.), B., 631.
- Gardner, E. D., Howell, S. P., and Jones, G. W., gases from blasting in tunnels and metal-mine drifts, B., 317.
- Gardner, F. T. See Rhodes, F. H.
- Gardner, H. A., facet effects on pigments, B., 202.
brushing lacquers and their future, B., 203.
accelerating the drying of paints and varnishes, B., 678.
inhibition of mildew on paints, B., 678.
protective coatings for duralumin and other aircraft alloys, B., 679.
paints for metal, B., 679.
painting tests on panels impregnated with zinc chloride or creosote, B., 679.
lacquer solvents, B., 680.
oil-soluble phthalic- and phenolic-type synthetic resins, B., 903.
- Gardner, H. A., and Heuckeroth, A. W. van, adhesion of [lacquer] films, B., 579.
- Gardner, H. A., and Knauss, C. A., acetone condensation resins, B., 579.
experiments in producing cellulose ethers and esters with special reference to cellulose nitroacetate, B., 888.
- Gardner, J. A., and Gainsborough, H., cholesterol content of normal human plasma. III. So-called alimentary hypercholesterolemia, A., 1045.
- Gardner, W. H., and Browne, A. W., azido-carbon disulphide. III. Behaviour towards chlorine, bromine, and iodine, A., 34.
- Garey, J. P. See Eclipse Textile Devices, Ltd.
- Garigiolo, R. See Migliacci, D.
- Garland, C. S., filters, (P.), B., 802.
- Garmédia, T. See Fernández, O.
- Garner, F. B., and Sugden, S., parachor and chemical constitution. VI. Cases of supposed ring-chain tautomerism, A., 67.
- Garner, W. E., radiant energy from flames, B., 881.
- Garner, W. E., and Johnson, C. H., effect of catalysts on the speed of flame, infra-red emission, and ionisation during the combustion of carbon monoxide and oxygen, A., 375.
- Garner, W. E., and Roffey, F., radiation from explosions of carbon monoxide and oxygen to which hydrogen has been added, A., 105.
- Garnett, H. T. See Smith, W. S.
- Garot, L., uricæmia in its relation to nucleoprotein metabolism. I. Uricæmic equilibrium and the place of origin of endogenous uric acid. II. Action of the liver on degradation products of nucleoproteins, A., 325.
- Garot, L., excretion of creatinine and the height of energy loss in man, A., 668.
excretion of creatinine and the energy demand, A., 1272.
- Garran, R. E., equilibria at high temperatures in the system iron-oxygen-carbon, A., 367.
- Garre, B., behaviour of metals towards dry salts at high temperatures, A., 603.
retarding the setting time of cement by the addition of small quantities of lead monoxide, B., 193.
effect of lead oxide on hardening of Portland cement, B., 265.
failure to harden of concrete mixtures poor in cement, B., 265.
- Garre, G. See Wedekind, E.
- Garrett, A. C. See Foster, W. C.
- Garrett, C. S., desiccation (De Vecchis) process of beet sugar manufacture, B., 459.
- Garrison, A. D., chemiluminescence; types, A., 814.
- Garrison, A. D., Nicholas, H. O., and Pasternack, J. G., simple hydrogen electrode for use in biochemistry, A., 804.
- Garrow, J. R. See Nielsen, H.
- Garsaux. See Behague.
- Gartlein, C. W., arc spectrum of germanium, A., 679.
- Gartsch, P. See Wieland, H.
- Gary, W. W., and Middleton, C. O., treatment of petroleum, (P.), B., 664.
- Gas Light & Coke Co., and Holdway, S., extractor gear for gas retorts, (P.), B., 885.
- Gas Light & Coke Co. See also Hollings, H.
- Gas Research Co., method and apparatus for supplying fluids [in definite proportion], (P.), B., 74.
- Gas Research Co. See also Smith, H. F.
- Gasified Fuel, Ltd. See Suftern, E. S.
- Gasifier Co., and Reichhelm, G. L., gasification of liquid fuels, (P.), B., 438.
- Gasinstitut, determination of the carbon monoxide content of burnt gases from gas-burning appliances, B., 13.
- Gasiorowski, S., acid asphalts, B., 662.
- Gasoline Products Co. See Cross, W. M.
- Gasoline Products Co., Inc., cracking of hydrocarbon oils, (P.), B., 884.
- Gasone Corporation, preparation of liquid fuels for combustion, (P.), B., 325.
- Gaspar y Arnal, T., sensitive reagent for the phosphate ion; distinction between antimony and tin, A., 1346.
reagent for ammonium, rubidium, and cesium ions; sensitive reagent for the phosphate ion, A., 1347.
recovery of potassium salts and other alkaline substances in the sugar industry, B., 725.
manufacture of sugar [from molasses], (P.), B., 940.
- Gassmann, T., artificial preparation of the principal constituent of bones and teeth, A., 1271.
- Gastaldi, C., and Princivalle, E., behaviour of pyrazine compounds. I, A., 1027.
- Gastellu, C. See Meunier, J.
- Gaswami, D. P. See Dutt, S.
- Gatewood, E., and Johnson, T. B., interaction of hydrogen sulphide with amino- and imino-acid nitriles, A., 745.
- Gatewood, W. E., Gaebler, O. H., Muntwyler, E., and Myers, V. C., alkalosis in patients with peptic ulcer, A., 1153.
- Gauduchau, A., treatment of meats *via* the blood stream, B., 386.
- Gauerke, C. G., and Marvel, C. S., action of magnesium cyclohexyl bromide on oxalic acid derivatives, A., 635.
- Gauerke, C. G. See also Johnson, J. R.
- Gault, H., and Sigwalt, R., cracking of hexadecane in presence of catalysts, B., 512.
- Gaumont, J. See Leulier, A.
- Gaunt, H., and Usher, F. L., solvation of the disperse phase in jellies, A., 125.
- Gaunt, J. A., theory of Hartree's atomic fields, A., 685.
the Debye-Hückel theory and stellar atmospheres, A., 685.
- Gaunt, P., and Abbott, W. E., dissolved oxygen absorption-time relation of activated sludge effluents, B., 214.
- Gaunt, R., Wall, C. L., and Bleachers' Association, Ltd., printing pastes for textile materials, (P.), B., 601.
- Gauquier, M. See Capiau, G.
- Gaus, W. See I. G. Farbenind. A.-G.
- Gauthier, (Miss) E. A., rapid determination of vaseline oil in coffee, B., 622.
- Gautier, C., and Thiers, H. P., increase in the weight, volume, and total nitrogen content of the liver with a diet rich in nitrogen, A., 792.

- Gavelle, P., reactions taking place after treatment of calcareous [building] stones with sodium silicate, B., 54.
- Gaver, F. van. See Kollmann, M.
- Gavardovskaja, M. V. See Zelinski, N. D.
- Gavin, M. J., experimental oil-shale plant of the Bureau of Mines, B., 735.
- Gaviola, E., NH-band and the dissociation energy of nitrogen, A., 1075.
- experimental test of Schrödinger's theory, A., 1303.
- Gaviola, E. See also Wood, R. W.
- Gavrilov, N., and Lavrovski, K., anhydrides of amino-acids from gelatin: hydrolysis by the method of Zelinski and Sadikov, A., 189.
- Gay [with Müller, P., and Roos, O.], determination of the lime requirement of soils, B., 796.
- Gay, E., obtaining photographic images [light-sensitive diazo-compounds], (P.), B., 173.
- obtaining photographic images, (P.), B., 213.
- Gay, L., Auméras, M., and Mion, P., general process of sulphonation, B., 595.
- sulphonation of aromatic compounds, (P.), B., 887.
- Gaythwaite, W. R., Kenyon, J., and Phillips, H., quadrivalency of selenium. I. 4-Carboxyphenyl and *p*-carboxyphenyl methyl selenoxides. II. Simple halogen derivatives and dihydroxide of 4-acetamidodiphenyl selenide, A., 1147.
- Gaythwaite, W. R. See also Edwards, O. K.
- Gazzi, V., interpretation of the analysis of arsenic trisulphide hydrosol, A., 359.
- presence of arsenious oxide in arsenic trisulphide hydrosol, A., 359.
- Gebauer-Fülneegg, E., and Eisner, I., alizarinsulphonic acid ester; a water-soluble alizarin preparation, B., 562.
- Gebauer-Fülneegg, E., and Fígdor, H., derivatives of *p*-dichlorobenzene containing sulphur, A., 280.
- Gebauer-Fülneegg, E., and Jusa, E., arylsulphonphenylechloramides, A., 995.
- Gebauer-Fülneegg, E., and Meissner, F. von, preparation of derivatives of phenolsulphonyl chloride, A., 997.
- Gebauer-Fülneegg, E., and Neumann, E., derivatives of *p*-dichlorobenzene containing sulphur, A., 1369.
- Gebauer-Fülneegg, E., and Petertil, E., simultaneous determination of sulphur and chlorine in organic compounds, A., 190.
- Gebauer-Fülneegg, E., and Riesz, E., oxidation of arylthiolarylides, A., 748.
- Gebauer-Fülneegg, E., Riesz, E., and Ilse, S., arylsulphonyl chlorides. II, A., 746.
- Gebauer-Fülneegg, E., and Riesz, E. [with Lorenz, A., and Pollak, R.], course of oxidation in arylthioarylides [derivatives of Ph-S-NHPh], A., 168.
- Gebauer-Fülneegg, E., and Schlesinger, A., derivatives of phenolmonosulphonyl chlorides, A., 631.
- Gebauer-Fülneegg, E., and Schwarz, P., preparation of dimethylaminodiaryl sulphones, A., 878.
- Gebauer-Fülneegg, E., and Smith-Reese, J., directive action of the carbethoxyl group in phenols, A., 1369.
- Gebauer-Fülneegg, E., Stevens, W. H., and Dingler, O., sulphuric esters from cellulose, A., 1226.
- Gebauer-Fülneegg, E. See also Pollak, J.
- Gedda, G. G., production of wrought iron with increased tensile properties, (P.), B., 863*.
- Geddes, W. F., and Hunter, A., asparaginase, A., 672.
- Geel, W. C. van, Zeeman effect of an intercombination line, A., 452.
- Geels, P. See Michels, A.
- Geer, W. C., Dales, B., and Goodrich Co., B. F., direct production of rubber goods, (P.), B., 904.
- Geere, E. W., production of acid substances used in the production of carbon dioxide, (P.), B., 784.
- Geffcken, H., and Richter, H., devices for generating ultra-violet rays and activating oxygen, etc., (P.), B., 490.
- Geffcken, W. See Fajans, K.
- Gehe & Co. Akt.-Ges. See Erdmann, G.
- Gehlen, H., physical methods in chemical laboratories. III. Production of intense magnetic and electric fields, A., 862.
- Gehlen, H. See also Paneth, F.
- Gehlhoß, G., Kaising, H., Litow, K., and Thomas, Max, characteristics of refractory clays for the glass industry, B., 928.
- Gehring, A., liming [of soils], B., 582.
- Gehrke, M. See Chemische Fabr. auf Aktien (vorm. E. Schering), and Schoeller, W.
- Geiger, C. F., and Carborundum Co., tunnel kiln, furnace, etc., (P.), B., 928.
- Geiger, E., mechanism of adrenaline hypoglycemia, A., 552.
- hormonal action of dextrose on production of insulin, A., 1287.
- Geiger, E., and Schmidt, Eugene, influence of adrenaline on formation of sugar, A., 1160.
- Geiger, H., and Müller, Walther, electron counter for the measurement of very weak activities, A., 1069.
- Geigy Akt.-Ges., J. R., manufacture of azo-dyes, (P.), B., 399.
- preparation of mineral acid-free synthetic tanning agents, (P.), B., 420.
- manufacture of mordant dyes, (P.), B., 442.
- manufacture of acid dyes of the phenonaphthasafranin series, (P.), B., 441, 781.
- manufacture of alkylisarosindulinesulphonic acids, (P.), B., 922.
- Geigy Akt.-Ges., J. R. See also Mettler, C.
- Geigy Société Anonyme, J. R. See Hoz, H., Laeuger, P., and Schärer, J.
- Geiling, E. M. K. See Du Vigneaud, V., and Jensen, H.
- Geipert, R., generator oven for the production of coke and gas, (P.), B., 114.
- Geisel, E., manufacture of compound glass, (P.), B., 671.
- Geisler, W. See I. G. Farbenind. A.-G.
- Geiss, W., and Liempt, J. A. M. van, copper-silicon alloys of high copper content, A., 117.
- behaviour of thorium oxide in tungsten filaments, A., 141.
- atom deformation in cold wrought tungsten, A., 352.
- effect of cold working on specific heat, A., 827.
- Geissler, J., specific weight and volume of ions and their compounds, including metals considered as compounds of metal ions with electrons, A., 460.
- Gelber, E. See Goldschmidt, S.
- Geldens, A. L., [brick] kilns, (P.), B., 784.
- Geller, R. F., Bureau of Standards investigation of felspars, B., 53.
- Geller, R. F., and Wadleigh, W. H., dehydration and firing behaviour of clays, B., 298.
- Gellhorn, E., comparative buffering power of blood and body fluids, A., 317.
- Geloso, J. See Wurmser, R.
- Geloso, M., and Lévy, (Mlle.) L. S., selective adsorption [of electrolytes during precipitation], A., 118.
- Gelsenkirchener Bergwerks-Akt.-Ges., and Hock, H., removal and recovery of heavy hydrocarbons from low-temperature gases, (P.), B., 806.
- Gelsenkirchener Bergwerks-Akt.-Ges., and Schütz, F., production of sulphonic acids [from neutral low-temperature tar oils], (P.), B., 223.
- recovery of phenols and cresols from crude tar, (P.), B., 846.
- Gelsenkirchener Bergwerks-Akt.-Ges. See also Dittmann, K. E.
- Genders, R., Reader, R. C., and Foster, V. T. S., die-casting of copper-rich alloys, B., 755.
- Genders, R. See also Hezlet, R. K.
- Gendre, J. L., absolute alcohol in industry, B., 595.
- General Carbonic Co. See Minor, H. R.
- General Chemical Co. See Meiklejohn, R. M., and Merriam, H. F.
- General Electric Co., refrigerant evaporators, (P.), B., 628.
- General Electric Co., and Bell, G. G., [short-flame, pulverised fuel burner for boiler], (P.), B., 75.
- General Electric Co., and Campbell, N. R., gas-filled photo-electric cell, (P.), B., 23.
- use of gas-filled photo-electric cells, (P.), B., 416.
- General Electric Co., and Higgins, C., electric incandescence lamps [for use in lighthouses], (P.), B., 339.
- General Electric Co., and Patent-Treuhand-Gesellschaft für elektrische Glühlampen m.b.H., [filaments for] electric incandescence lamps, (P.), B., 529.
- General Electric Co., and Smithells, C. J., purification of gases, (P.), B., 262.
- manufacture of chromium or similar refractory metals, (P.), B., 372.
- manufacture of electrical resistance elements, (P.), B., 716.
- manufacture of alloys of nickel and chromium, (P.), B., 716.
- General Electric Co., Warren, W. W., and Hyslop, J. F., tank furnaces for the manufacture of glass, (P.), B., 405.
- General Electric Co., Weintraub, E., and Société Alsacienne de Constructions Mécaniques, electric mercury-vapour apparatus [rectifier], etc., (P.), B., 416.

- General Electric Co. See also Bernhoeft, K., Berry, E. R., Blake, H. D., Blau, F., Conlin, J. J., Cox, D. C., De Graaff, A., Fonda, G. R., Fuller, T. S., Herzog, E., Hodges, W. H., Holst, G., Howe, G. H., Ipsen, C. L., Irby, W., Kelley, F. C., Kingdon, K. H., Koref, F., McFarland, J. L., Maryan, C. C., Otis, A. N., Paget, G., Seede, J. A., Skaupy, F., Unger, M., Valentine, I. R., Watson, H. L., Weed, J. M., and Wolff, Hans.
- General Fuel Briquette Corporation. See Stillman, A. L.
- General Motors Corporation, and Phillips, W. M., [anode for] electrolytic deposition of chromium, (P.), B., 97.
- General Motors Corporation. See also Andrew, J. P., Midgley, T., jun., and Youtz, M. A.
- General Motors Research Corporation, porous metal bodies, (P.), B., 270.
- General Motors Research Corporation. See also Boegehold, A. L., and Williams, H. M.
- General Norit Co., Ltd. See Lourens, C.
- General Petroleum Corporation of California. See Dickey, S. J., Olsen, G. F., and Roth, E. W.
- General Rubber Co., treatment of rubber latex, (P.), B., 721.
- General Rubber Co. See also Gibbons, W. A.
- General Zeolite Co. See Green, W. H.
- Genevois, L., respiration and fermentation in green plants. II. Metabolism of phanerogams, A., 207.
- Genevois, L. See also Aubel, F.
- Geniesse, J. C., and Huf, H. F., effect of volatility of petroleum fractions on detonation value, B., 700.
- Génin, G., electrical phenomena in colloidal solutions, A., 238.
- Genescke, W., and American Lurgi Corporation, purification of oils and fats, (P.), B., 865*.
- Gentile, F., avitaminosis; behaviour of some blood ferments in avitaminosis; antitryptic action of serum in experimental avitaminosis, A., 676.
- George, B. L., manufacture of a flotation agent, (P.), B., 58.
- George, H., electric furnace, (P.), B., 823.
- George, W. F. C. See Hall, J. A.
- Georgesou, M. V. See Ionescu, V.
- Georgi, C. D. V., jelutong, B., 309, 868.
- Georgi, C. D. V., evaluation of jelutong, B., 868.
- Georgi, C. D. V. See also Bunting, B.
- Gerard, R. W., respiration of nerve in oxygen and in nitrogen, A., 910.
- Gerard, R. W., and Meyerhof, O., metabolism of nerves. III. Chemistry and intermediate processes, A., 198.
- Gerasimov, N., free path of molecules and the coefficient of inner friction in fluids, A., 1084.
- Gerasimovič, B. P., nebulium and hydrogen in new stars, A., 337.
- Gerber, V., importance of the specific electrical conductivity of milk and a new method for its determination, B., 66.
- Gerdes, H. C. See Koenigs, E.
- Gerdien, H., and Siemens & Halske A.-G., manufacture of asbestos bodies, (P.), B., 485*.
- Gerdien, H. See also Duhme, E., and Siemens & Halske A.-G.
- Gerdum, E. See Lemmermann, O.
- Gerhardt, F., chemical changes incident to ripening and storage in the Grimes apple, B., 105.
- Gerhardt, F. See also Plagge, H. H.
- Gerhardt, U., interferometric measurement of particles visible in the ultra-microscope, A., 1321.
- Gericke, S., distribution of phosphoric acid and potassium in soils, B., 168.
- Gericke, S., theoretical considerations on the determination of soil nutrients, B., 619.
- Gerke, R. H., primary decomposition of molecules in photochemical reactions, A., 30.
- Gerlach, M., Günther, E., and Seidel, C., Mitscherlich's method for determining the fertilizer requirement of soils, B., 583.
- Gerlach, W., and Schweitzer, E., quantitative spectral analysis of lead in gold, and a new method of analysis by emission spectra. IV., A., 859.
- Gerlach, W., spectroscopic method of finding the position of an impurity in a metal, A., 860.
- Germain, R. A. See Paisseau, J.
- German, H. M., hardness-testing machine, (P.), B., 3.
- Germann, F. E. E., and Muench, O. B., micro-determination of vapour pressure and water of hydration of solid compounds, A., 1203.
- Germar, H. See Bredt, J.
- Germer, L. H. See Davisson, C. J.
- Germuth, F. G., hæmatoporphyrin in urine, A., 88.
- Germuth, F. G., titrimetric determination of tervalent arsenic by oxidation, A., 263.
- Germuth, F. G., determination of formic acid in acetic acid, A., 617.
- Germuth, F. G., formation and properties of mercuric ammonium chloride, A., 721.
- Germuth, F. G., colorimetric determination of titanium by the hydrogen peroxide method, A., 982.
- Germuth, F. G., volumetric method for determination of sulphate ion [in potable waters, etc.], B., 504.
- Germuth, F. G., determination of nickel with α -benzildioxime in presence of chromium compounds, B., 675.
- Gernett, H. See Schischkin, V.
- Gerngross, O., fluorescence of pine bark, pine wood, sulphite pulp and liquor, B., 153.
- Gerngross, O., glue testing; report of the Commission of the German Association for testing technical materials, B., 496.
- Gerngross, O. See also Pringsheim, H.
- Gero, W. B., Hallock, G. W., and Westinghouse Lamp Co., manufacture of oxide-coated cathodes, (P.), B., 22.
- Gero, W. B., and Iredell, C. V., making pure tungstic oxide [from wolframite], B., 669.
- Gero, W. B., and Westinghouse Lamp Co., activation of refractory material [thoriated metal], (P.), B., 339.
- Geromanos, H. W. See Stetson, H. T.
- Geronazzo, M., analytical control of sulphocates used in tanning. II. Sulphoricinoleates, B., 580.
- Gerrard, W., and Kenyon, J., dependence of rotatory power on chemical constitution. XXXII. Resolution of phenylbenzylcarbinol, A., 1240.
- Gerševic, A. J. See Tronov, B. V.
- Gershon, V. P. See Grosvenor, W. M.
- Gerssen, J. N., electrically determining the penetrability of sole leather for water, B., 794.
- Gerstäcker, A., Möller, H., and Reis, A., X-ray study of some triclinic-pinacoidal crystals, A., 1177.
- Gerstäcker, A., crystal structure of pentaerythritol tetra-acetate and tetra-nitrate, A., 1177.
- Gerthsen, C., radiations emitted at the impact of hydrogen canal rays on metals, A., 683.
- Gerthsen, C., single scattering of hydrogen nuclei at solid bodies, A., 1068.
- Gerum, J., evaluation of milk, B., 687.
- Gesellschaft für Chemische Industrie in Basel. See Society of Chemical Industry in Basle.
- Gesellschaft für Chemische Produktion m.b.H., active carbon, (P.), B., 593.
- Gesellschaft für Kohlentechnik m.b.H. See Still, C.
- Gesellschaft für Linde's Eismaschinen Aktien-Gesellschaft, transmission of heat from one gas to another, (P.), B., 41.
- Gesellschaft für Teerverwertung m.b.H., and Moehrle, E., isolation of *p*-xylenol and *m*-4-xylenol from phenols of coal tar, (P.), B., 486.
- Gessner, O., poison of the water snake (*Tropidonotus natrix*). I. Action of the water snake blood on the isolated cold-blooded heart, A., 787.
- Gessner, O. See also Gürber, A.
- Gestel, K. See Lachs, H.
- Getman, F. H., activity and free energy of dilution of some salts of cadmium, A., 241.
- Getman, F. H., absorption spectra of potassium ferro- and ferri-cyanides, A., 345.
- Getman, F. H., activity of cadmium iodide in aqueous solution, A., 709.
- Getz, (Miss) D. See Rice, F. O.
- Gewecke, J., use of the quinhydrone electrode for the determination of the p_H of whole blood and serum, A., 438.
- Gewerkschaft Burbach, and Killewald, F., spraying tower for cooling and crystallising solutions, (P.), B., 773.
- Gewerkschaft Sachtleben, and Küppers, J., rotary furnaces, (P.), B., 391.
- Gewerkschaft des Steinkohlenzeche Mont-Cenis, purifying hydrogen or gases containing hydrogen, (P.), B., 894.
- Gex, M., relation of p_H and changes in the buffer value of solutions of human serum, A., 1391.
- Gex, M. (Mlle.) M. See Vlés, F.
- Geys, C., oxalic acid and its adsorption compounds in beers, B., 171.
- Gheorghiu, C. V., and Arventiev, B., condensation of methyl isobutyl ketone with benzaldehyde, A., 522.
- Ghosh, B. N., adsorption of hydrogen ions and its effect on the swelling and electrical charge of gelatin, A., 472.

- Ghosh, *H.*, structure of the hydrogen atom, *A.*, 344.
- Ghosh, *J. C.*, relative masses of a proton and an electron, *A.*, 344.
- Ghosh, *J. C.*, and Basu, *K.*, photobromination of ethyl *m*-nitrobenzylidenemalonate. I, *A.*, 176.
- photochemical reaction between bromine and tartaric acid in aqueous solution. II. and III. Mechanism of the reaction, *A.*, 970.
- Ghosh, *J. C.*, Basu, *K. P.*, and Bhattacharyya, *S. C.*, photobromination of ethyl *m*-nitrobenzylidenemalonate. II., *A.*, 767.
- Ghosh, *J. C.*, and Mitra, *B. N.*, extinction coefficient of mixtures of ferric chloride and organic acids in the ultra-violet as experimental evidence in favour of the formation of unstable intermediate compounds. II., *A.*, 687.
- Ghosh, *J. C.*, and Mitter, *B. N.*, extinction coefficients of mixtures of uranyl nitrate and organic acids in the ultra-violet as experimental evidence in favour of the formation of unstable intermediate compounds, *A.*, 14.
- Ghosh, *J. C.*, and Mukherjee, *J.*, photochemical oxidation of leuco-malachite-green by uranyl nitrate in monochloroacetic acid solution, *A.*, 31.
- Ghosh, *J. C.* See also Purkayastha, *R. M.*
- Ghosh, *N. N.* See Ghosh, *S.*
- Ghosh, *S.*, collision of α -particles with helium atoms, *A.*, 4.
- Ghosh, *S.*, and Dhar, *N. R.*, adsorption. XXI. Influence of similarly charged ions on the coagulation of sols of Congo-red, benzopurpurin, and cerium hydroxide, *A.*, 119.
- relations between hydration and stability of a sol and the anomalous coagulating influence of fluorine ions on some hydrosols, *A.*, 235.
- sensitisation of Prussian-blue sols and Oden's sulphur sols by gelatin and tannic acid, *A.*, 476.
- relation between hydration and stability of sols and the bivalent nature of the fluoride ion, *A.*, 949.
- Ghosh, *S.*, and Ghosh, *N. N.*, alkaloids of Kurchi bark (*Holarrhena antidysenterica*). I. Two new alkaloids in Indian holarrhena, *A.*, 1265.
- Ghosh, *S.* See also Prakash, *S.*
- Ghosh, *S. K.* See Sen, *H. K.*
- Ghosh, *T. N.* See Guha, *P. C.*
- Giacalone, *A.*, reduction of quinones by means of phenylhydrazine, *A.*, 1015.
- Giacalone, *A.* See also Oddo, *G.*
- Giambalvo, *V.*, relation between conductivity and thermoelectric power in magnetic fields, *A.*, 353.
- Giauque, *W. F.*, and Wiebe, *R.*, entropy of hydrogen chloride; heat capacity from 16° Abs. to b. p.; heat of vaporisation; vapour pressures of solid and liquid, *A.*, 228.
- heat capacity of hydrogen bromide from 15° Abs. to its b. p. and its heat of vaporisation; entropy from spectroscopic data, *A.*, 1083.
- Gibbons, *W. A.*, McGavack, *J.*, and United States Rubber Plantations, Inc., treatment of latex and products obtained therefrom, (*P.*), *B.*, 616.
- Gibbons, *W. A.*, and Naugatuck Chemical Co., vulcanisation of rubber, (*P.*), *B.*, 238.
- Gibbons, *W. A.*, Shepard, *M. G.*, and General Rubber Co., concentration of fluids [latex, etc.], (*P.*), *B.*, 62*.
- Gibbons, *W. A.* See also Hopkinson, *E.*, and United States Rubber Plantations, Inc.
- Gibbons Bros., Ltd., and Bridgford, *T. E.*, [floors for] muffle-furnaces, (*P.*), *B.*, 802.
- Gibbons Bros., Ltd., Marle, *M. van*, and Bridgford, *T. E.*, muffle furnaces for annealing, (*P.*), *B.*, 574.
- Gibbons Bros., Ltd. See also Hollander, *C.*
- Gibbs, *G. S.*, adsorption of quinine by blood cells, *A.*, 911.
- Gibbs, *R. C.*, and Shapiro, *G. V.*, spectroscopic criterion for the benzenoid structure in some types of triphenylmethane derivatives, *A.*, 570.
- absorption spectra of sulphonefluorescein and some derivatives, *A.*, 1019.
- relation of hydrolysis to the validity of Beer's law, *A.*, 1305.
- absorption spectra of phthaleins and sulphonphthaleins of phenol and *o*-cresol, *A.*, 1374.
- Gibbs, *R. C.*, and White, *H. E.*, certain multiplets in the spectra of Nb III and Nb IV, *A.*, 566.
- analysis of spectra arising from quadruply-ionised tin, Sn V, *A.*, 678.
- certain multiplets in the spectra of Cd III and In IV, *A.*, 679.
- Gibbs, *R. C.*, and White, *H. E.*, regularities exhibited between certain multiplets for elements in the second long period, *A.*, 1165.
- relations in the spectra of stripped atoms, *A.*, 1297.
- Gibbs, *R. C.* See also Orndorff, *W. R.*, and White, *H. E.*
- Gibbs, *W. E.* See Salt Union, Ltd.
- Gibbs, *W. M.*, and Batchelor, *H. W.*, effect of tree products on bacteriological activities in soil. II. Forest soils, *B.*, 63.
- Giberton, *A.* See Millat, *J.*
- Gibrat, *R.*, focal structure of smectic substances, *A.*, 112.
- Gibson, *C. H.*, and Hinshelwood, *C. N.*, homogeneous reaction between hydrogen and oxygen, *A.*, 960.
- influence of nitrogen peroxide on the union of hydrogen and oxygen; a problem of "trace catalysis," *A.*, 1334.
- Gibson, *C. S.*, Hariharan, *K. V.*, and Simonsen, *J. L.*, derivatives of methyl 2:2-dimethylcyclopentan-3-one-1-carboxylate, *A.*, 173.
- Gibson, *C. S.*, and Johnson, *J. D. A.*, analogous organic compounds of phosphorus and arsenic, *A.*, 311.
- diphenylamine-*p*-arsinic acid, *A.*, 782.
- NN'*-diphenyl-*o*-phenylenediamine, *A.*, 1128.
- 10-chloro-5:10-dihydrophenarsazine and its derivatives. VI. Compounds containing two nitrogen and two arsenic atoms in six- and five-ringed systems, *A.*, 1146.
- Gibson, *C. S.*, Kentish, *W. S.*, and Simonsen, *J. L.*, *N*-methyl derivatives of 2-phenylnaphthylene-1:3-diamine, *A.*, 1128.
- Gibson, *C. S.*, and Matthews, *E.*, lead subacetate solution (Gouillard's extract) and its reaction with phenols, *A.*, 505.
- Gibson, *C. S.*, Nutland, *J. H.*, and Simonsen, *J. L.*, stereochemistry of reduced quinoxalines. III. Resolution of externally compensated α - and β -2:3:7-trimethyl-1:2:3:4-tetrahydroquinoxalines, *A.*, 304.
- Gibson, *C. S.*, and Simonsen, *J. L.*, derivatives of 2-phenyl-6-methyl-4-pyrone; non-resolution of 2-phenyl-6-methyl-4-pyrone *d*- α -bromocamphor- π -sulphonate, *A.*, 1254.
- Gibson, *C. S.* See also Colles, *W. M.*
- Gibson, *D. T.*, reaction of caryophyllene, *A.*, 526.
- Gibson, *G. E.*, isotope effect in iodine monochloride bands in the neighbourhood of the convergence limit, *A.*, 1301.
- Gibson, *G. E.*, and Eyring, *H.*, ionisation and stopping power of various gases for α -particles from polonium. II., *A.*, 4.
- Gibson, *G. E.*, and Gardiner, *E. W.*, ionisation and stopping power of various gases for α -particles from polonium. I., *A.*, 4.
- Gibson, *G. E.*, and Heitler, *W.*, chemical constants and the new quantum statistics, *A.*, 941.
- Gibson, *G. E.*, and Ramsperger, *H. C.*, band spectra and dissociation of iodine monochloride, *A.*, 6.
- Gibson, *G. E.* See also Franck, *J.*
- Gibson, *R. E.*, influence of pressure on the high-low inversion of quartz; high-low inversion of quartz and the heat capacity of low quartz at 573° *A.*, 1094.
- Gibson, *W.* See British Dyestuffs Corporation, Ltd.
- Gibson, *W. A.*, and Bradley Pulverizer Co., adjustable plough for centrifugal grinding mills, (*P.*), *B.*, 175.
- Gibson, *W. A.*, Burke, *J. G.*, and Bradley Pulverizer Co., centrifugal grinding mill, (*P.*), *B.*, 352.
- Giedroyć, *W.* See Przylecki, *S. J.*
- Giesecke, *F.*, hygroscopicity and the chemical properties of soils, *B.*, 311.
- relation between mechanical composition and hygroscopic coefficient of a soil, *B.*, 421.
- Giesecke, *F.* See also Blanck, *E.*
- Giesler, *L.* See Rupe, *H.*
- Gigerl, *E.* See Franke, *Adolf.*
- Gigon, *A.*, carbohydrate metabolism and ammonia formation in the blood, *A.*, 668.
- Gigon, *A.*, and Boulenaz, *R.*, blood composition and blood clotting, *A.*, 540.
- Gigon, *A.*, and Lüdin, *M.*, influence of X-rays on certain blood constituents, *A.*, 317.
- Gilbert, *B. E.*, adaptation of certain colorimetric methods to the determination of nitrates, phosphates, and potassium in plant solutions, *B.*, 102.
- Gilbert, *B. E.*, and McLean, *F. T.*, a "deficiency disease": lack of available manganese in a lime-induced chlorosis [in crops], *B.*, 723.
- Gilbert, *B. E.*, McLean, *F. T.*, and Adams, *W. L.*, current mineral nutrient content of the plant solution as an index of metabolic limiting conditions, *A.*, 1162.

- Gilbert, *F. L.*, and Lowry, *T. M.*, valency. X. Electrometric titration of Vernon's α - and β -dimethyltelluronium bases, A., 1098.
- Gilbert, *F. L.* See also Berry, *A. J.*, and Lowry, *T. M.*
- Gile, *P. L.*, colloidal soil material, B., 537.
- Giles, *D. J.*, and Latrobe Electric Steel Co., steel alloy, (P.), B., 57.
- Giles, *I. V.*, and American Cyanamid Co., manufacture of aromatic nitriles, (P.), B., 561.
- Gill, *A. F.*, laboratory cooling device using liquid sulphur dioxide, A., 389.
- Gill, *A. H.*, and Greenup, *H. W.*, colouring matter of cottonseed hulls, A., 1408.
- Gill, *F.*, Mardles, *E. W. J.*, and Tett, *H. C.*, phosphorescence and autocatalysis during slow combustion, A., 1335.
- Gill, *L. O.*, and Staley Manufacturing Co., A. E., manufacture of laundry starch, (P.), B., 280.
- Gillam, *A. E.*, and Morton, *R. A.*, comparison of certain methods for determining the ultra-violet intensity of a light source, A., 139.
- formation of nitrite from nitrate as a measure of ultra-violet intensity, A., 140.
- Gillam, *A. E.* See also Doran, *W.*
- Gille, *F.*, and Spangenberg, *K.*, influence of carbamide on the crystal habit of sodium chloride, A., 464.
- Gille, *R.* See Schneider, *W.*
- Gilles, *J.*, structure of the second order spectrum of sulphur (S II), A., 565, 679.
- Gilles, *R.* See Standard Telephones & Cables, Ltd.
- Gillespie, *D. C.* See Burk, *R. E.*
- Gillespie, *W. F.* See Hibbert, *H.*
- Gillet, *A.* See Dufraisse, *C.*
- Gilligan, *G. M.* See Holland, *E. B.*
- Gillingham, *C. A.*, dry cell service and tests, B., 415.
- Gillis, *J.*, electro-analytical methods. III. Potentiometric titration, A., 383.
- natural classification of the elements and the qualitative analysis grouping, A., 976.
- Gillis, *L. N.*, degumming of flax straw, (P.), B., 155.
- Gillis, *R.* See Western Electric Co., Inc.
- Gillot, *P.*, seed of *Euphorbia verrucosa*, Jacq., A., 1290.
- Gilman, *H.*, and Fothergill, *R. E.*, constitution of *o*-nitrobenzaldehyde and the interference of nitro- and nitroso-groups on the Zerewitinoff method for the determination of active hydrogen, A., 64.
- arylsulphonyl magnesium chlorides and their reactions with ethyl sulphate, A., 513.
- interference of nitro- and azo-groups on the Zerewitinoff method for the determination of active hydrogen, A., 536.
- Gilman, *H.*, and Furry, *M.*, identification of organo-magnesium halides by crystalline derivatives prepared from α -naphthylcarbimide, A., 660.
- Gilman, *H.*, and Heck, *L. L.*, reaction between organo-magnesium halides and alkyl sulphonates, A., 1124.
- Gilman, *H.*, and Heckert, *L. C.*, reaction of carbylamines and hydrocyanic acid with magnesium phenyl bromide, A., 401.
- Gilman, *H.*, Heckert, *L. C.*, and McCracken, *R.*, aromatic properties of some aliphatic compounds; local anaesthetics derived from aliphatic carboxylic acids, A., 393.
- Gilman, *H.*, and McGlumphy, *J. H.*, reaction between ethylenic linking and organomagnesium halides, A., 513.
- Gilman, *H.*, and Peterson, *J. M.*, catalysts and activated magnesium in the preparation of Grignard reagents, A., 160.
- Gilman, *H.*, Peterson, *J. M.*, and Schulze, *F.*, improved activated magnesium for the preparation of the Grignard reagent and a comparative study of various catalysts, A., 253.
- Gilman, *H.*, and Robinson, *J.*, quantitative analysis of organolead compounds, A., 1041.
- Gilman, *H.*, and Schulze, *F.*, organoberyllium halides, A., 50.
- beryllium dialkyls, A., 50.
- qualitative colorimetric reaction for the Grignard reagent, A., 160.
- characterisation of the $-OMgX$ group, A., 875.
- Gilman, *H.*, and Zoellner, *E. A.*, preparation of magnesium *tert*-butyl chloride, A., 401.
- relative reactivities of *n*-butyl bromide and bromobenzene towards magnesium in ether, A., 1212.
- Gilman, *J. A.* See Parker, *J. G.*
- Gilmore, *F. E.*, counter-flow [oil-refining] still, (P.), B., 182.
- Gilmore, *F. E.*, Ahlburg, *F.*, and White, *W. K.*, manufacture of gasoline, (P.), B., 6.
- Gilmore, *F. E.*, and Gilmore Co., *F. E.*, fire still and oil treater, (P.), B., 358.
- Gilmore Co., *F. E.* See Gilmore, *F. E.*
- Gilmore, *K. E.* See Cann, (*Miss*) *J. Y.*
- Gilmour, *G. van B.*, determination of salt in butter and margarine, B., 241.
- Gilta, *G.*, isomerism of *p*-hydroxyphenylarsinic acid, A., 189, 1146.
- Gimingham, *C. T.* See Tattersfield, *F.*
- Gingold, *J.*, electrical conductivity in solid sodium chloride at the ordinary temperature, A., 1314.
- Ginneken, *P. J. H. van.* See Aten, *A. H. W.*
- Ginsburg, *J. M.*, formation of water-soluble arsenic in sulphur-lime dry mix spray, B., 651.
- Giöbel, *G.*, relation of soil nitrogen to nodule development and fixation of nitrogen by certain legumes, B., 101.
- Giordani, *F.*, influence of preliminary treatment with alkali in the preparation of cellulose by means of gaseous chlorine, B., 443.
- influence of the "conversion" yield and the temperature of condensation on the purity of the product and on the "condensation yield" in the synthesis of phosgene, B., 446.
- Giordani, *M.*, electrolytic determination of zinc, A., 499.
- solutions of quinine in ethylurethane, A., 907.
- electrolytic reduction of nitrosoantipyrine, A., 969.
- Giordano, *R.*, Zambelli's vacuum evaporator, A., 1208.
- Giorgi, *G.*, quantitative variation of alloxuric substances in urine of diabetics in connexion with insulin therapy, A., 321.
- Girard, *A. J.* See Jamet, *A.*
- Girard, *L.* See Mouren, *C.*
- Girbes, *G.* See Lifschitz, *I.*
- Girgolev, *S.*, and Schukov, *J.*, determination of hydrogen-ion concentration in very small volumes of liquid, A., 382.
- Girod, *C.* See Brenans, *P.*
- Girsewald, *C. B. von.* See Metallbank & Metallurgische Ges. A.-G.
- Gisevius, and Klitsch, manuring of meadows with mineral nitrogen, B., 342.
- Gitovitch, *V.* See Isabolinski, *M.*
- Gittinger, *G. S.* See Munch, *J. C.*
- Givan, *C. V.* See Veihmeyer, *F. J.*
- Given, *M. H.*, textures of ice-creams as influenced by some constituents, B., 798.
- Glabau, *C. A.* See Wagner, *T. B.*
- Gladding, *E. K.*, Sharpe, *T. E.*, and Du Pont Rayon Co., Inc., treatment of rayon [artificial silk], (P.), B., 228.
- Glagoleva, *A. A.* See Vrevski, *M. S.*
- Glaser, *C.* See Glaser, *P. G.*
- Glaser, *E.*, production of condensation products from waste and wash-liquors and distillates of phenol-formaldehyde resin manufacture, (P.), B., 681.
- Glaser, *E.*, and Frisch, *S.*, condensation products from acid amides and aldehydes; constitution of the transformation products of the benzometoxazones, A., 652.
- detection of phosgene in chemical fire extinguishers, B., 247.
- Glaser, *O.*, examination of the structure of slags, B., 861.
- Glaser, *P. G.*, and Glaser, *C.*, protective layers for photographic gelatin emulsions, (P.), B., 213.
- Glassmann, *B.*, colorimetric determination of small quantities of bismuth in urine, A., 666.
- relationship between digestibility of fish flesh prepared by different methods and its water content, B., 689.
- Glassmann, *B.*, and Rochwarger-Walbe, (*Mrs.*), mechanism of the formation of osazones, A., 1118.
- Glasstone, *S.*, and Symes, *T. E.*, electrodeposition of iron-nickel alloys. II. and III., A., 851.
- Glathe, *H.*, hot fermentation of stable manure by Krantz' process, B., 169.
- Glaubitz, *M.* See Staiger.
- Glauner, *R.*, and Glocker, *R.*, corrosion and crystallite orientation in rolled [copper] sheets, B., 643.
- Glauner, *R.* See also Simon, *A.*
- Glaze, *F. W.*, rapid assay of basic lead carbonate, B., 274.
- Gleditsch, *E.*, and Gleditsch, *L.*, electrical conductivity of aqueous solutions of radon, A., 957.
- Gleditsch, *L.* See Gleditsch, *E.*
- Gleich, *H.* See Feigl, *F.*
- Glennie, *A. E.* See Magee, *H. E.*
- Glimm, *E.*, and Grimm, *R.*, hydrolysis of starch by salts, A., 1157.

- Glimm, E., Schröder, H., and Stentzel, F., determination of small quantities of fusel oil, B., 543.
- Glimm, E., and Wadehn, F., placental hormone ("feminin"), A., 332.
- femal sex hormone in yeast, A., 1160.
- Glinka, S. F., dumortierite, A., 1210.
- Glitzke, E. C., control for electric furnaces, (P.), B., 98.
- Gliwitsky, W. See Bartels, H.
- Glixiell, S., and Wiertelak, J., electrokinetic potential of silicic acid gels, A., 586.
- electrokinetic potential of silicic acid gels. II. Effect of electrolytes, A., 953.
- Gloeker, G. See Lind, S. C.
- Glocker, R., Kaupp, E., and Widmann, H., excitation of fluorescence by X-rays of different wave-lengths, A., 346.
- Glocker, R., and Schreiber, H., quantitative X-ray analysis by cold excitation of spectra, A., 818.
- Glocker, R., and Widmann, H., recrystallisation of the silver-copper alloy containing 80% Ag, B., 371.
- Glocker, R. See also Bass, A., and Glauner, R.
- Glockler, G., activation of hydrogen by electric discharge, A., 140.
- Glockler, G., and Roberts, L. D., determination of oxygen in organic compounds, A., 536.
- Glockler, R., and Risse, O., photochemical decomposition by X-radiation, A., 970.
- Gloess, P., recovery of organic substances containing iodine from marine algae, (P.), B., 816.
- Glorius, E. See Schmid, J.
- Glover, W. H., Topham, C. F., and Courtaulds, Ltd., production of artificial silk, (P.), B., 364*.
- Gmelin. See Pfeffer, E.
- Gminder, E., method and apparatus for obtaining fibrous material from stalks, (P.), B., 188.
- production of figures on vegetable textile material by mercerisation, (P.), B., 227.
- cotton fabric and its manufacture, (P.), B., 852.
- Gnojinski, H., influence of insulin on the blood-sugar of animals after removal of the kidneys, A., 1404.
- Gobel, W., action of ultra-violet light on serum colloids, A., 192.
- Godchot, M., and Cauquil, (Mlle.), derivatives in the cyclo-octane series, A., 65.
- molecular rearrangement in the cycloheptane series, A., 410, 634.
- dehydration of cycloheptanone pinacol, A., 521.
- Goddard, A. E., and Yarsley, V. E., antimony. II. Derivatives of tri-p-tolylstibine, A., 533.
- Goddard, A. E. See also Masters, E.
- Godden, W., and Grimmer, R. E. R., factors affecting the iron and manganese content of plants, with special reference to herbage causing "pinning" and "bush-sickness," B., 723.
- Godden, W. See also Orr, J. B.
- Godel, A., separation and recovery of gases and vapours by absorbent solids, (P.), B., 773.
- Godel, A., and Société de Recherches et d'Exploitations Pétrolifères, absorbent catalyst, (P.), B., 595*.
- Godfrey, (Sir) G. C., Benthall, E. C., Tarlton, E. S., Wheeler, H. F. (Bird & Co.), and Spencer, E., separating or extracting cellulose or paper pulp, (P.), B., 925.
- Godfrin, P., bismuth salicylates and citrates, A., 288.
- Godnev, T. N., rôle of iron in the formation of chlorophyll, A., 1407.
- Godowsky, L., jun. See Mannes, L. D.
- Godsey, H. M., apparatus for distillation, (P.), B., 553.
- Godward, E. R., and Eclipse Petrol Economiser System Co., Ltd., producing dry gaseous fuel, (P.), B., 843*.
- Godwin, H., and Bishop, L. R., behaviour of cyanogenetic glucosides of cherry laurel during starvation, A., 1290.
- Goebel, E. See Neumann, B., and Rademacher, R.
- Goebel, W. F., and Avery, O. T., soluble specific substances of Friedländer's bacillus. III. Types A and C, A., 329.
- Goebels, P., and Polysius, G., compound mill, (P.), B., 72.
- Goedecke, C. E. J., and Eberlein, W., production of dyestuff emulsion and of colour lake therefrom, (P.), B., 518*.
- Goeder, F. P., crystal structure of potassium, rubidium, and caesium sulphates, A., 223.
- Göler, von, and Sachs, G., crystals of β -brass, A., 710.
- Göler, von. See also Bauer, O.
- Gömöry, A. See Szélenyi, G.
- Goergen, (Miss) S. M. See Pearce, J. N.
- Görne, J. See Müller, Erich.
- Götz, F. W. P., and Dobson, G. M. B., height of the ozone in the upper atmosphere, A., 1209.
- Goßmann, M., solder for aluminium and its alloys, (P.), B., 95.
- Goßmann, M. See also Racheeff, B.
- Goggs, A. B., ceria-thoria catalysts, A., 1337.
- Gogolev, F., electrically-heated apparatus for fat and oil Soxhlet extractions, B., 824.
- determination of oil in seeds, etc., B., 865.
- Goiffon, R., and Haudiquet, determination of complex proteins by means of their "protein-error," A., 190.
- Gojon, P. See Leulier, A.
- Goldberg, A. A., and Linstead, R. P., three-carbon system. XVIII. Influence of alkyl substituents on the $\alpha\beta$ - $\beta\gamma$ change in unsaturated acids: reduction of sorbic acid, and a new synthesis of pyrotrebeic acid, A., 1214.
- Goldberg, (Mlle.) F. See Weil, S.
- Goldberg, J. M., Gamerow, S. M., and Pinchassik, M. L., action of hypertonic dextrose solutions on the excretion of water and chlorides by the kidneys. I. and II., A., 1275.
- Goldblatt, M. W., comparison of the effects of dextrose and dihydroxyacetone on metabolism, A., 545.
- Goldbloom, A. A., influence of administration of active iron oxide and of radiothorium on the formation of blood and on metabolism in normal rabbits, in regard to the urinary C : N quotient, A., 325.
- influence of radiothorium on the urinary C : N quotient, A., 325.
- influence of narcosis on the urinary C : N quotient (dysoxidisable carbon in urine after narcosis), A., 325.
- influence of peroral and intravenous administration of radium bromide on the urinary C : N quotient, A., 1279.
- behaviour of the urinary C : N quotient following parenteral administration of extract of the anterior lobe of the pituitary body, A., 1287.
- carbon- and oxidation-quotients of urine after injection of "praephysone," A., 1287.
- Goldbloom, A. A., and Gottlieb, R., cholesterol content of the blood of infants and children, A., 790.
- Golden, W. G., and United States Foil Co., colouring of [tin] foil, (P.), B., 305.
- Goldenberg, J. D. See Burstein, A. I.
- Golding, J., and Zilva, S. S., influence of the cow's diet on the fat-soluble vitamins of winter milk. II., A., 333.
- Golding, J. See also Blissett, A. H.
- Goldman, M. H., and Hubbard, C. C., cleaning of fur and leather garments, B., 362.
- Goldmann, F., and Póányi, M., adsorption of vapours on carbon, and the thermal dilution of the interface, A., 579.
- Goldscheider, R., and Tusehinsky, I., manufacture of imitations of frosted glass, glass stainings, etc., (P.), B., 368.
- Goldschmidt, E., carbon- and oxidation-quotients of urine after calcium administration, A., 1275.
- Goldschmidt, H., Marum, E., and Thomas, L., conductivity and catalytic action of trinitro-m-cresol in solution in ethyl alcohol, A., 595.
- Goldschmidt, H. See also Fleischer, R.
- Goldschmidt, R., preparation of concentrated potassium solutions from distillers' mash, (P.), B., 104.
- Goldschmidt, S., constitution of proteins. III., A., 534.
- oxidation of alcohol, (P.), B., 397, 474*.
- Goldschmidt, S. [with Sadler, A., Gelber, E., Schüssler, H., and Vogt, A.], compounds with trivalent carbon, A., 642.
- Goldschmidt, S., Askenasy, P., and Pierros, S., mechanism of the oxidative action of hydrogen peroxide in the presence of ferrous iron; oxidation of glycolic acid, A., 251.
- Goldschmidt, S., and Graef, F., optical investigation of quinones and free radicals, A., 1248.
- Goldschmidt, S., and Wessbecher, H., *oo'*-diquinones of the naphthalene series, A., 409.
- Goldschmidt, V. M., distances apart of atoms in metals, A., 820.
- crystal structure and the types of chemical combination, A., 1312.
- Goldschmidt, V. M., and Knudsen, R., refractory material, (P.), B., 232.
- Goldschmidt Akt.-Ges., T., manufacture of colloiddally dispersed white lead, (P.), B., 100.
- production of aluminium conducting material of high electric conductivity, strength, and chemical resistance, (P.), B., 161.
- aluminium alloys, (P.), B., 234.
- bearing-metal alloys, (P.), B., 789, 821.

- Goldschmidt A.-G., *T.*, and Kohlschütter, *V.*, atomising solid material, (P.), B., 734.
- Goldschmidt A.-G., *T.* See also Sander, *W.*, and Schertel, *L.*
- Goldstein, *B.*, determination of trypsin in pancreatic juice, A., 1054.
- Goldstein, *E.*, synthesis of ammonia; argon as catalyst, A., 486.
- Goldstein, *H.*, and Kopp, *W.*, carbazine syntheses. *V.* Derivatives of *C*-dimethylcarbazine. VI. Derivatives of *C*-diethylcarbazine, A., 647.
- Goldstein, *H.*, and Warnéry, *A.*, azoxines. IV., A., 309.
- azoxines. V. Application of the Turpin reaction to aminonaphthols, A., 779.
- Goldstein, *H.*, and Vaymarcher, *J.*, derivatives of phenylanthranilic acid. IV., A., 287.
- carbazine syntheses. IV., A., 303.
- Goldstein, *R. F.* See Brady, *O. L.*
- Goldstein, (*Mrs.*) *R. R.* See Berry, *A. J.*, and Lowry, *T. M.*
- Goldthorpe, *W. O.* See Ellis, *G. H.*
- Gollasch, *T.* See Mannich, *C.*
- Golov, *O. P.* See Nastukov, *A. M.*
- Golov, *P. I.*, and Jankovski, *V. D.*, determination of catalase in blood, A., 911.
- Gomberg, *M.*, and Bachmann, *W. E.*, [preparation of] *p*-bromodiphenyl, A., 627.
- reaction between the binary system, magnesium-magnesium iodide, and aromatic acids and acid derivatives, A., 1373.
- Gomberg, *M.* See also Anderson, *L. C.*
- Gombert, (*Mlle.*) *P.* See Canals, *E.*
- Gomolińska, *M.*, decomposition of uric acid in blood, A., 1269.
- Gomory, *W. L.*, and Leonard, *C. M.*, cracking of hydrocarbons; crude-oil preheater, (P.), B., 513.
- Gonyer, *F. A.* See Shannon, *E. V.*
- Goodall, *C.*, apparatus for drying, dyeing, fireproofing, or otherwise treating timber, (P.), B., 335.
- Goodall, *F. L.*, modified stoving test [for dyed wool], B., 639.
- Goode, *E. A.*, Bayliss, *N. S.*, and Rivett, *A. C. D.*, constitution of magnesium acetate solutions. II. Evidence from vapour pressures, A., 947.
- Goode, *K. H.*, "acid-alkalimeter"; a direct-reading p_H meter, A., 1109.
- Goodeve, *C. F.* See Shipley, *J. W.*
- Goodhue, *E. A.*, and Dunlap, *H. L.*, catalytic action of neutral salts; effect of normal alkali sulphates on alkali acid sulphates in the ketonic splitting of ethyl acetoacetate, A., 967.
- Goodloe, *A. M.*, and Midwest Steel & Supply Co., Inc., dust separator [for gases], (P.), B., 144.
- Goodrich, *H. R.*, spalling and loss in compressive strength of firebrick, B., 299.
- Goodrich, *W. E.* See Russell, *T. F.*
- Goodrich Co., *B. F.* See Bedford, *C. W.*, Fisher, *H. L.*, Geer, *W. C.*, and Trumbull, *H. L.*
- Goodtzov, *N. T.* See Seljakov, *N. J.*
- Goodwin, *C. J.*, and Mathieson Alkali Works, synthesising oxides of nitrogen, (P.), B., 91*.
- Goodwin, *H.* See Saunders, *K. H.*
- Goodwin, *N.*, and Park, *C. R.*, carbon blacks and their use in rubber. I. Comparative properties of blacks and tests in uncured rubber, B., 579.
- carbon blacks and their use in rubber. II. Experiments in vulcanised rubber, B., 649.
- Goodwin, *R. T.*, and Standard Oil Development Co., preparation of a [hydrocarbon] oil composition; treatment of hydrocarbon residues, (P.), B., 326.
- Goodwin, *W.*, and Martin, *H.*, Bordeaux mixture in combination with arsenical sprays, B., 724.
- Goodyear, *E. H.*, and Haworth, *W. N.*, oxide-ring structure of normal and γ -derivatives of mannose; preparation and oxidation of γ - and δ -mannonolactones, with an addendum on the formulation of normal and γ -sugars as derivatives of pyran and furan and the suggestion of a new nomenclature, A., 156.
- Goodyear Tire & Rubber Co., and Carson, *C. McK.*, preparation of disulphide compounds, (P.), B., 361.
- Goodyear Tire & Rubber Co., and Sebrell, *L. B.*, vulcanisation of rubber, (P.), B., 377.
- reducing the corrosive action of acids on iron and steel in pickling baths, (P.), B., 898.
- manufacture of rubber compositions, (P.), B., 904.
- Goodyear Tire & Rubber Co., and Teppema, *J.*, vulcanisation of rubber, (P.), B., 239*.
- Goodyear Tire & Rubber Co. See also Bedford, *C. W.*, Carson, *C. M.*, Churchill, *L. R.*, Endres, *H. A.*, Lewis, *W. K.*, and Sebrell, *L. B.*
- Gorbatschev, *S.*, Schtschukarev's magneto-chemical effect, A., 353.
- molecule ion absorption, A., 358.
- Gordon, *J.*, conditioning or treating water in boilers, etc. to prevent incrustation and corrosion, (P.), B., 944.
- Gordon, *J.*, and Wormald, *A.*, action of ultra-violet rays on complement, A., 1046.
- Gordon, *K.* See Slade, *R. E.*, and Synthetic Ammonia & Nitrates, Ltd.
- Gordon, *N. E.* See White, *C. E.*
- Gordon, *P. F.*, and Merry, *J.*, separation of the components of petroleum. VI. Action of glacial acetic acid, B., 250.
- Gordon, *R.*, and Lehmann, *J. F.*, instrument to record the carbon dioxide content of a gaseous mixture, B., 391.
- Gordon, *S. G.*, probable identity of gageite with tephroite, A., 987.
- arfvedsonite, riebeckite, and crocidolite from Greenland, A., 987.
- Gordon, *S. M.*, seeds of *Nepela cataria*, A., 560.
- aldehydes of *Pinus Jeffreyi*, A., 560.
- Mentha*. XVI. Non-volatile constituents of *Mentha aquatica*, L., B., 799.
- Gordon, *W.*, energy levels of the hydrogen atom according to the Dirac quantum theory of electrons, A., 565.
- current according to Dirac's electron theory, A., 1303.
- Gore, *H. C.*, new soluble starch and an improved polarimetric Lintner method, B., 725.
- Gore, *H. C.*, and Fleischmann Co., maltose product and production of same, (P.), B., 207*.
- Gorham, *F. D.*, Stroud, *C. M.*, and Huffmann, *M.*, total chloride concentration and acidity of the gastric contents, A., 1153.
- Gorham, *W. G.* See Dunlop Rubber Co., Ltd.
- Gorini, *C.*, disgenetic milk, A., 85.
- Goritschan, *E.* See Brunner, *K.*
- Gorka, *H.*, effect of frost on soils, B., 134.
- Gorodetzka, *A.* See Frumkin, *A.*
- Gorodissky, *H.*, anaerobic resynthesis of phosphocreatine after stimulation of isolated frog's muscle, A., 917.
- Gorsky, *W.*, X-ray investigation of the changes in the alloy CuAu, A., 1078.
- Gorter, *E.*, and Grendel, *F.*, spreading into a unimolecular layer as a method for the determination of blood-fat, A., 317.
- Gortner, *R. A.*, Hoffman, *W. F.*, and Sinclair, *W. B.*, proteins and the lyotropic series, A., 237.
- Goskar, *T. A.*, distillation of coal and other solid carbonaceous materials, (P.), B., 593.
- Gosmann, *W.* See Concordia Elektrizitäts A.-G.
- Goss, *F. R.*, polycyclic structures in relation to their homocyclic unsaturated isomerides. IX. Effect of the *spirocyclopentane* grouping on the five-carbon intra-annular tautomeric nucleus, A., 758.
- Goss, *F. R.*, and Ingold, *C. K.*, tautomerism of cyclopentadienes. I. Derivatives of methylcyclopentadiene, A., 758.
- Gosselink, *J. G.* See Richter, *G. A.*
- Gossler, *H.* See I. G. Farbenind. A.-G.
- Gossling, *B. S.* See Ryde, *J. W.*
- Gossner, *B.*, lattice constants of skapolite and apophyllite, A., 693.
- structure of quartz, A., 693.
- structural relationships of silicates, A., 1172.
- Gossner, *B.*, and Musssnug, *F.*, crystal structure of cinnabar and covellite, A., 1176.
- crystal structure of pyrrargyrite, A., 1176.
- Goswami, *B. K.* See Ray, *P.*
- Goth, *E.*, *ar-a*-substituted hydrindenes, A., 996.
- Gottlieb, *S.* See Klein, *P.*
- Gotta, *A.* See Sieverts, *A.*
- Gottfried, *A.*, composition and examination of milk pastry, B., 66.
- Gottfried, *C.*, structure of antimonite, A., 350.
- space-group of staurolite, A., 821.
- space-group of helvite, A., 350.
- structure of β -corundum, A., 1177.
- Gottfried, *C.*, and Mark, *H.*, structure of zinc hydroxide, A., 350.
- Gottfried, *S.*, and Ulzer, *F.*, pentadecoyl-lutidine and pentadecoyl-lupetidine, a higher homologue of coniine, A., 1022.
- Gottfried, *S.* See also Heller, *G.*
- Gottlieb, *E.*, ammonia content of and ammonia formation in blood. I., A., 539.
- ammonia formation in the kidney. II., A., 539.
- Gottlieb, *R.* See Goldbloom, *A. A.*

- Gottschalk, A., fermentation and phosphorylation of sugar anhydrides, A., 89.
 relation between vegetable and animal carbohydrate degradation, A., 442.
 point of attack of co-zymases in the fermentation of dextrose and hexosediphosphoric acid, A., 551.
 co-enzyme requirement of yeast in the fermentation of hexose-monophosphate and hexosediphosphate, A., 674.
 production of fumaric acid from pyruvic acid by *Rhizopus nigricans*, A., 804.
 methylglyoxalase and co-enzyme, A., 923.
 yeast amylase, A., 1284.
- Goubau, R., micro-elementary analysis, A., 1205.
- Goubyrin, L., coloured reserves under sulphur dyes [by printing], B., 812.
- Goudet, A., conversion of methane into a petroleum-like liquid, (P.), B., 844.
- Goudet, C. See Breslauer, J.
- Goudriaan, F., magnitude of observation errors in chemical analysis, A., 262.
- Goudsmit, S., multiplet separations for equivalent electrons and the Röntgen doublet law, A., 807.
- Goudsmit, S., and Humphreys, C. J., multiplet separations, A., 807.
- Goudsmit, S. See also Back, E.
- Gough, G. A. C., and King, H., trypanocidal action and chemical constitution. VIII. Derivatives of β -aminoethyl- and γ -amino-propyl-arsinic acids, A., 1231.
- Gough, H. J., relation of fatigue to cohesion in metals, A., 111.
- Gough, H. J., and Murphy, A. J., causes of failure of wrought-iron chain and cable, B., 860.
- Gould, W. S., Osborne, W. B., and Gould Storage Battery Co., Inc., manufacture of [wooden] separators [for accumulators], (P.), B., 577.
- Gould Storage Battery Co., Inc. See Gould, W. S.
- Goursat, L., and Michaud, F., use of atmospheric pressure for regularly and continuously supplying liquid to [distillation] vessels, (P.), B., 589.
- Goutal, E., and Hennebute, H., gas producer, (P.), B., 631.
- Goutal, E. See also Hennebute, H.
- Gow, A. M., metallurgical furnace, (P.), B., 268.
- Gowan, E. H., effect of ozone on the temperature of the upper atmosphere, A., 1209.
- Gowen, J. W., and Tobey, E. R., significance of composition of the secreting and dry mammary gland to milk secretion, A., 1272.
- Gower, C. H. R., and O'Brien & Partners, Ltd., S., providing a resistant coating upon surfaces of aluminium or its alloys, (P.), B., 576.
- electroplating the surface of aluminium or its alloys, (P.), B., 576.
- Goy, S., and Koehler, A., deterioration of brandy during storage, B., 65.
- Goyle, D. N. See Bhatnagar, S. S.
- Graaf, R. J. van de, mobility of ions or electrons in gases, A., 932.
- Grabe, E. See Euler, H. von.
- Graber, L. See Mauguin, C.
- Graber, L. F., Nelson, N. T., Luekel, W. A., and Albert, W. B., organic food reserves in relation to the growth of lucerne and other perennial herbaceous plants, B., 497.
- Grabfield, G. P., and Knapp, E., effect of salicylates on nitrogen metabolism with special reference to the effect of the cation of the salt, A., 547.
- Grabianka, S., radioactivity of water from various sources in Poland, A., 864.
- Grabill, J. D., grading machine, B., 467.
- Gratanin, M., zinc in plant biochemistry, A., 562.
 orthophosphoric acid as a stimulator of the germinating power of seeds, A., 926.
- Grace, A. R., preparation of agar culture media, A., 330.
- Gradenwitz, W., manufacture of base-exchange substances for the removal of iron and manganese compounds and hardness from drinking and boiler-feed waters, (P.), B., 318.
- Graef, F. See Goldschmidt, S.
- Gränacher, C., and Gulbas, G., glyoxalones and glyoxalidones. II., A., 75.
- Gränacher, C., and Landolt, H., 3:5-hydantoin derivatives as anhydrides of amino-acid diuretics, A., 74.
- Gränacher, C., and Wolf, G., hypobromite titration of amino-acid derivatives, A., 82.
 stereochemistry of carbonyldiamino-acids, A., 303.
- Graetzel, A. von. See Skita, A.
- Graf, R. See Meyer, Hans.
- Graf Schwerin Gesellschaft. See Elektro-Osmose Akt.-Ges.
- Grafe, E., and Meythaler, F., regulation of the production of insulin. II. Action of carbohydrates (except dextrose) on the production of insulin, A., 925.
- Grafe, V., and Magistris, H., phosphatides of *Daucus carota*, A., 561.
- Graff, G., adulteration of brandy and its detection, B., 383.
- Graffunder, W. See Meissner, K. W.
- Graham, D. P. See Walton, J. H.
- Graham, H. J. See Cochran, P. B.
- Graham, J. I., and Skinner, D. G., conversion of coal into oil by the Bergius method, B., 557.
- Graham, J. I. See also Coscia, G.
- Gram, T. See Soderlund, O., and Testrup, N.
- Grand, J. A., increasing and improving the resistance of spun goods from artificial silk waste, (P.), B., 259*.
- Grandi, A. See Bonino, G. B.
- Grandseigne, R. H. See Paul, R.
- Grange, R. H. See Lumière, A.
- Granier, J. See Brun, P.
- Grant, C. G. See Price, W. B.
- Grant, J., overpotential at metallic cathodes; silver in neutral and alkaline solutions, A., 371.
 nature of the deposit formed during electrolysis of neutral and alkaline solutions with an antimony cathode, A., 969.
- Grant, L. E., and Grant, L. F., hardness and structure of deposited chromium, B., 450.
- Grant, L. F. See Grant, L. E.
- Grant, R. F., Worthington, E. B., Jacobus, W. L., and Susquehanna Collieries Co., effecting the separation of subdivided materials [vertical separators], (P.), B., 734*.
- Grant, R. F. See also Wetherbee, H. E.
- Granular Iron Co. See Smith, J. K.
- Grasselli Chemical Co., Burnett, W. B., and Williams, I., vulcanisation of rubber substances, (P.), B., 420.
 aldehyde-amine condensation products, (P.), B., 515.
- Grasselli Chemical Co. See also Alvord, E. B., Corson, H. P., Graver, A. R., Howard, H., Kline, E., McQuaid, H. S., Tanner, W. L., and Westbrook, L. R.
- Grasselli Dyestuff Corporation. See Ballauf, F., Berliner, R., Braunsdorf, O., Daimler, K., Eckert, W., Fischer, Erich, Günther, A., Haller, J., Hartmann, E., Hentrich, W., Herold, P., Herz, R., Herzberg, W., Hoffa, E., Keller, F., Kirchheim, T., Krauhs, C., Kugel, Max, Metzger, R., Mieg, W., Neelmeier, W., Schmidt, R. E., Siebert, O., Spengler, O., Stock, J., Tesche, H., Thaus, A., Thiess, K., Vossen, B., Wagner, Hermann, Winterhalder, W., and Zahn, K.
- Grasser, G., miscellaneous tannery investigations. I. Soluble methylene compounds of tannin anhydrides. II. Methylene derivatives of tannin. III. Phloroglucinol reaction of tannin. IV. Behaviour of the albumin-globulin and of the corine of the skin towards protein reagents. V. Rate of conversion of green into violet chromic salts, B., 682.
- Grasser, G., and Hirose, combination chrome and vegetable tanning, B., 682.
- Grassheim, K., and Lucas, E., phosphorus content of serum in renal disease, A., 1048.
- Grassmann, W. See Willstätter, R.
- Grat, A. See Machek, G.
- Gratama, E. J. See Meursing, A. H.
- Gratsos, A. See Waser, E.
- Gratzl, E. See Neumann, A.
- Graue, E. See Fuchs, K.
- Graver, A. R., and Grasselli Chemical Co., production of colloidal copper sulphide [for use as an insecticide], (P.), B., 261.
- Graves, G. D., and Standard Oil Co., removal of wax from oil, (P.), B., 438.
- Gray, A. E. See Fisher, H. L.
- Gray, E. D., and Standard Oil Co. of California, production of demulsifying agents for refining petroleum oil, (P.), B., 739.
- Gray, E. W. See Bond, W. R.
- Gray, F. A. See Ellestad, R. B.
- Gray, H., protective paint from rubber, B., 237.
- Gray, H. le B., Staud, C. J., and Eastman Kodak Co., manufacture of cellulose acetate, (P.), B., 565.
- Gray, J. A., laws of X-ray absorption, A., 211.
- Gray, J. A., and Cave, H. M., scattering of X-rays by gases, A., 212.

- Gray, J. A., and Cave, H. M., absorption and scattering of γ -rays of radium, A., 215.
- Gray, J. A., and Sargent, B. W., relative ranges of β -rays, A., 215.
- absorption of β -rays, A., 1302.
- Gray, L. J., and Universal Oil Products Co., cracking of petroleum, (P.), B., 701.
- Gray, L. T. M., experimental technique of photochemistry. IV. Critical examination of certain filters for the 365 mercury line, A., 5.
- Gray, P. H. H., formation of indigotin from indole by soil bacteria, A., 204.
- Gray, P. H. H., and Thornton, H. G., soil bacteria which decompose aromatic compounds, A., 924.
- Gray, T., apparatus for delivering gas at constant pressure, A., 1209.
- Gray, W. H., action of aniline on *d*-glutamic acid, A., 770.
- Grayzel, D. M., and Miller, E. G., jun., *pu* of gastrointestinal tract in dogs in relation to diet and rickets, A., 557.
- Greaves, H. J., centrifugal machine, (P.), B., 73, 144.
- Green, A., aromatic thionyl and chlorothionyl derivatives. III. Reactions of thionylalzarine, A., 181.
- Green, A. G., application of methods of dyestuff analysis to the examination of pigments and lakes, B., 647.
- manufacture of derivatives of acridine, B., 691.
- Green, A. T., open-hearth steel works' refractories, B., 571.
- temperature diffusivity and thermal conductivity of silica refractory material at high temperatures, B., 571.
- Green, A. T., and Edwards, H., spalling of silica refractory material at low temperatures, B., 642.
- Green, A. T. See also Dale, A. J., and Heffernan, P.
- Green, (Mrs.) G. A., and Turner, W. E. S., homogeneity of glass melted in pots on the commercial scale, B., 192.
- Green, H. H., mineral metabolism. IV. Determinations of phosphorus compounds in blood by dry combustion, A., 1051.
- Green, H. H., and Macaskill, E. H., mineral metabolism. VI. Comparison of the blood of the cow and calf in respect to mineral constituents, A., 1051.
- Green, H. H. See also Malan, A. I.
- Green, H. L., application of the Aitken effect to the study of aerosols, A., 124.
- Green, H. N., and Mellanby, E., rat technique for demonstrating interfering effect of cereals on bone calcification, A., 333.
- Green, J. B., and Lang, R. J., spectrum of trebly-ionised antimony, Sb IV., A., 930.
- series spectra of cadmium-like atoms, A., 1295.
- Green, J. B., and Loring, R. A., spectra of tin and their Zeeman effects, A., 2.
- Green, J. R., modified Hartmann diaphragm, A., 1209.
- Green, L. B., and Borden Co., preparation of solid fuels for burning in pulverised form, (P.), B., 593.
- Green, M. See Parker Rust-Proof Co., and Willard, H. H.
- Green, T. C., potash charge removal from platinum crucibles [in alkali determinations], A., 385.
- Green, W. H., Behrman, A. S., and General Zeolite Co., purification of water, (P.), B., 214.
- Green, W. M. See Schmidt, F. W.
- Green Engineering Co. See Marsh, T. A.
- Greenawalt, W. E., copper-extraction process, (P.), B., 234.
- Greenbaum, F. R., calcium salt of *p*-iodoguaiacol and *p*-iodoguaiacol carbonate, A., 518.
- iodo-derivatives of phthalicins, A., 884.
- Greenberg, D. M., transport numbers of fibrin, A., 1045.
- electrochemistry of the proteins, A., 1192.
- electrical transference of calcium in blood-serum protein solutions, A., 1269.
- Greene, A. E., electric furnace, (P.), B., 128.
- electric [are] furnace [for steel], (P.), B., 931.
- Greene, C. H., Aldrich, M., and Rowntree, L. G., metabolism of the bile acids, A., 669.
- Greene, C. H., and Snell, A. M., metabolism of the bile. II. Changes in blood and bile following intravenous injection of bile or of its constituents, A., 1154.
- Greene, R. D., and Lewis, W. L., reactivity of methylated sugars. III. Action of dilute alkali on tetramethyl-*d*-mannose, A., 1359.
- Greensfelder, B. S. See Latimer, W. M.
- Greenstreet, W. R., tapioca. I. Sampling the standing crop. II. Coeruleomolybdate method for determination of phosphates, B., 683.
- artificial farmyard manure, B., 870.
- Greenstreet, W. R., and Teik, G. L., by-products of the pineapple canning industry, B., 425.
- Greenup, H. W. See Gill, A. H.
- Greenwald, H. P. See Coward, H. F.
- Greenwald, I. Jaffé's reaction for creatinine. IV. Compound of creatinine, picric acid, and sodium hydroxide, A., 744.
- red compounds of barbituric acid, picric acid, and sodium or lead hydroxide, A., 774.
- Greenwald, I., Gross, Joseph, and McGuire, G., sugar of normal urine, A., 85.
- Greenwood, G., rotating-crystal X-ray photographs, A., 108.
- Greenwood, G. See also McLennan, J. C.
- Greger, H. P., free-burning carbonised fuels for the open fire, B., 251*.
- properties of coke, B., 556.
- ignition of solid fuels, B., 628.
- Gregg, S. J., Patrick's theory of adsorption, A., 582.
- Gregory, D. V. See Norris, J. F.
- Gregory, F. G., differential effect of the ions of three-salt solutions on growth of potato plants in sand culture, A., 334.
- Gregory, F. G., and Crowther, F., differential response of barley varieties to manuring, B., 169.
- Gregory, H., and Marshall, S., thermal conductivities of oxygen and nitrogen, A., 577.
- Gregon, W., waste heat recovery, B., 801.
- Greig, J. W., liquid immiscibility in the system $\text{FeO}-\text{Fe}_2\text{O}_3-\text{Al}_2\text{O}_3-\text{SiO}_2$, A., 132.
- liquid silicate immiscibility, A., 721.
- Greinacher, H., light emission of gases excited by α -rays, A., 347.
- Greiner, C., scraper for separating solidified colloids from supporting surfaces, (P.), B., 651.
- Greiser, E. See Metallisor Berlin A.-G.
- Greiss, M. See Küster, W.
- Gremmer, W., spectra of neon, argon, and krypton (additional lines), A., 1293.
- Grenaudier, L., recovery of the paste, and in particular wood pulp, from printed paper by the removal of the ink therefrom, (P.), B., 521.
- Grendel, F. See Gorter, E.
- Grené, P., conversion of heavy hydrocarbons into light and stable hydrocarbons, (P.), B., 291.
- Grenier, K. J. A., catalytic process for the manufacture of hydrogen, (P.), B., 603.
- Grenquist, E. A., dispersion of "pigments" in rubber. I. Microscopical studies of agglomeration and flocculation, B., 867.
- Greppi, E., determination of urobilin in urine and faeces, A., 789.
- Greppi, E. See also Charrier, G.
- Gress, K. See Edeleanu, L.
- Greth, A. See Eibner, A.
- Grette, D. P., and Williams, R. J., adsorption of organic compounds on hydrated oxides and fuller's earth, A., 471.
- Greulich, E., thermal decomposition of ferrous sulphate, A., 131.
- Grevenmeyer, M., utilisation of waste water from sugar factories, B., 497.
- Grewe, B., effect of dry skim milk on baking quality of various flours, B., 798.
- Grey, F. C., enzymes of *Bacillus coli communis*. VI. Alternative modes by which *B. coli* may bring about anaerobic decomposition of dextrose, A., 1159.
- theory of the production of zymase by the living cell, A., 1159.
- Griece, C. S. W., and Woodhead, D. W., estimation of firedamp: flame caps, B., 147.
- Griebel, C., starch in hazel nuts, B., 314.
- microscopical structure of some tropical fruits and their detection in marmalade-like preparations such as "lukutate-pulp," B., 544.
- occurrence of starch in oily seed-kernels used as foodstuffs, B., 689.
- microscopical detection of durian and nillu (Salpamisri), B., 835.
- Griebel, C., and Weiss, F., microchemical detection of volatile aldehydes, A., 82.
- Grieg, E. F., wetting [of powders] and its measurement, B., 589.
- Grieg-Smith, R., influence of colloids on fermentation, A., 203.
- Griesbach, W., degradation of fatty acid in surviving dog's muscle, A., 1277.
- Griessbach, R. See I. G. Farbenind. A.-G.
- Griff, G. See Levi, M. G.
- Griffin, K. M., Richardson, H. L., and Robertson, P. W., adsorption and constitution: adsorption of organic acids on animal charcoal, A., 1317.

- Griffin Wheel Co., operation of cupolas, (P.), B., 899*.
- Griffing, E. P. See Alsberg, C. L.
- Griffith, H. D., and Spence, K. C., photosynthesis of the antirachitic vitamin by ultra-violet radiation of short wave-length, A., 926.
- Griffith, P. W., and American Cyanamid Co., manufacture of a condensation product, (P.), B., 237.
- treatment of calcium cyanide, (P.), B., 333.
- Griffith, P. W. See also Buchanan, G. H.
- Griffith, R. H., analysis of gas oils and hydrocarbon oils from tars, B., 841.
- Griffith, R. H., and Holliday, G. C., determination of iron carbonyl, B., 856.
- Griffith, R. O., and McKeown, A., thermal decomposition of ozone; computation of velocity coefficients determined by the manometric method, A., 24.
- Griffiths, E., thermal conductivities of walls, concretes, and plasters, B., 929.
- Griffiths, E., and Schofield, F. H., thermal and electrical conductivity of some aluminium alloys and bronzes, B., 371.
- Griffiths, P. P. See Fellers, C. R.
- Griffiths, J. See Straub, E.
- Griffon, H. See Leulier, A.
- Grignard, V., catalysis under reduced pressure, A., 521, 718.
- Grignard, V., and Dœuvre, J., constitution of citronellol and rhodinol, A., 1113.
- citronellol and rhodinol, A., 1113.
- Grignard, V., and Fluchaire, M., condensing action of mixed magnesium alkyl-oxides, A., 396.
- Grignard, V., Lapayre, L., and Faki, T., monomagnesium derivative of acetylene, A., 1232.
- Grignard, V., and Mingasson, G., reduction of acid chlorides under reduced pressure; preparation of aldehydes, A., 64.
- mechanism of the catalytic hydrogenation of phenols, A., 178.
- Grigoriev, A. T., physical properties of platinum, A., 941.
- gold-platinum alloys, A., 955.
- Grigoriev, A. T., Shemtschushni, S. F., Zvjaginstsev, O. E., Karpov, B. G., Kurnakov, N. S., Lebedinski, V. V., and Podkopaev, N. I., Analytical Commission of the Platinum Institute. III. Analysis of platinum ores. IV. Determination of copper and iron. V. Complete analysis of platinum ore, B., 302.
- Grigoriev, P. N., determination of carbon monoxide by means of mercuric oxide, A., 145.
- theory of the preparation of silica gel by means of water-soluble metal salts, A., 360.
- Grill, F., spectrum and pharmacology of chlorophyll, A., 1060.
- Grillon, (Mlle.) S. See Bridel, M.
- Grimble, F., Caird, M. N., and Coombs, E., centrifugal separating apparatus, (P.), B., 3*.
- Grimditch, W. H., Hunsberger, J. N., jun., and Philadelphia Storage Battery Co., electrolytic rectifier, (P.), B., 305.
- Grimm, H. G., ionisation potential of helium according to Schrödinger's theory, A., 340.
- types of [chemical] combination, A., 1311.
- stabilisation of chemical substances, (P.), B., 353*.
- Grimm, H. G., Raudenbusch, W., and Wolff, H., separation of binary liquid mixtures by silica gel. II, A., 230.
- Grimm, H. G., and Wagner, G., new kinds of mixed crystals. II. Formation of mixed crystals by barium sulphate and potassium permanganate, A., 356.
- Grimm, H. G., and Wolff, H., separation of binary liquid mixtures by silica gel. I, A., 230.
- Grimm, O. See Stiasny, E.
- Grimm, R. See Glimm, E.
- Grimmel, H. See I. G. Farbenind. A.-G.
- Grimmer, J. See Society of Chemical Industry in Basle.
- Grimmett, R. E. R. See Godden, W.
- Grimston, F. S., season-cracking of small-arms cartridge cases [in India] during manufacture, B., 525.
- Grimwood, A. J. See Curtis's & Harvey, Ltd.
- Grindley, R., and Pyman, F. L., condensation of glyoxalines with formaldehyde, A., 186.
- Grinten, F. van der, manufacture of diazo-types, (P.), B., 769.
- Grinten, F. van der, and Chemische Fabrik L. van der Grinten, manufacture of photographic sensitive layers, (P.), B., 349.
- Grischkevitch-Trochimovski, E., composition and structure of the polymeride of hydrocyanic acid, A., 745.
- synthesis of tertiary aliphatic arsines using Grignard's reagent, A., 1125.
- Grischkevitch-Trochimovski, E., Buczwinski, M., and Kwapiszewski, J., organic arsenic derivatives; action of alkalis on diethylchloroarsine, A., 1364.
- Grischkevitch-Trochimovski, E., Matejak, L., and Zablocki, W., arseno-organic compounds, A., 80.
- Grischkevitch-Trochimovski, E., and Sikorski, S. F., optical properties of arsenic, A., 220.
- Griswold, G. G., jun., and Sheridan, G. E., flotation of ores, (P.), B., 451.
- Groák, B., union of carbon dioxide and hæmoglobin, A., 910.
- Grob, W. See Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges.
- Groeblér, H., X-ray investigation of the structures of the oxides of iron, A., 692.
- Groeblér, H., and Oberhoffer, P., oxides of iron, especially ferrous oxide, B., 12.
- Gröndal, G., continuous filtering apparatus, (P.), B., 506.
- Groeneveld, C. See Jorissen, W. P.
- Grönningssæter, S., and Fischer-Hollinshed Co., Inc., transference of vitamins [from fatty materials], (P.) B., 530.
- Gröppel, E. See Gröppel, K.
- Gröppel, K., Gröppel, E., Waschkau, A. (Maschinenfabr. Fr. Gröppel, C. Lührig's Nachfolger), and Debuch, C. P., moulding briquettes of iron ore or iron-bearing materials, and apparatus therefor, (P.), B., 759.
- Grogan, J. D. See Archbutt, S. L.
- Groggins, P. H., resins from chlorinated cymene, B., 579.
- Grob, E. See Seidenschneur, F.
- Grohmann, H. See Tillmans, J.
- Grohn, H., influence of adsorption on the oil absorption of pigments, B., 376.
- Groleas, F., and Arnaoutovitch-d'Albany, D., improvement of fuel, (P.), B., 6.
- Groll, J. T., preparation of peptone for therapeutic applications, B., 654.
- Grollman, A., vapour pressure of dog's blood at body temperature, A., 785.
- Groninger, H. B., [brick for] furnace structure, (P.), B., 551.
- Gronroos, H., manufacture of burnt building materials, etc., from clay, (P.), B., 369*.
- Gronwall, T. H., LaMer, V. K., and Sandved, K., influence of the so-called higher terms in the Debye-Hückel theory of solutions of strong electrolytes, A., 841.
- Groot, J. See Waterman, H. I.
- Gross, R., piperazine in the analysis of urine and blood, A., 1273.
- Gross, A., colour reaction in blood-serum, A., 543.
- Gross, F. See Knoch, C.
- Gross, J., and Zimmerley, S. R., crushing and grinding. I. Surface measurement of quartz particles, B., 482.
- Gross, Joseph. See Greenwald, I.
- Gross, P., change of the mass action law for strong electrolytes, A., 128.
- Grosse, A. von, element 91; its properties and preparation, A., 259, 495, 972.
- Grosse, A. von. See also Hahn, O.
- Grosselinger, H. See Fischer, Hans.
- Grosser, J., working-up of soap lyes, B., 577.
- Grossfeld, J., determination of lecithin-phosphoric acid in egg liqueurs, B., 313.
- detection of rancid edible fats which have been reworked, B., 824.
- octic acid value for determination of coconut oil, B., 824.
- lauric acid content of coconut and palm-kernel oils and the detection of these in mixtures of edible fats, B., 901.
- Grossfeld, J., and Simmer, A., detection of excessive quantities of husk in cocoa and cocoa preparations, B., 911.
- Grossfeld, J., and Wisemann, F., determination of milk fat in small quantities of fat, B., 385.
- Grossman, F., new iodoso-(iodoso-iodyl)-benzene electrode and its application to the determination of p_{OH} or p_H , A., 607, 1345*.
- Grossmann, M., and Pollak, S., employment of dihydroxyacetone ("oxantin") in diabetes, A., 1153.
- Grosvenor, W. M., and Gershon, V. P., manufacture of alloys, (P.), B., 452.
- Grote, A. See Musag Ges. für den Bau von Müll- & Schlacken-Verwertungsanlagen A.-G.
- Grote, I. W. See Kamm, O.
- Grotowsky, H. See I. G. Farbenind. A.-G.
- Grottrian, W., inverse Stark effect in the principal series of sodium, A., 931.

- Grottrian, W., and Ramsauer, G., inverse Stark effect in principal potassium series, A., 210.
- Groum-Grjaillo, V. E., brown silica bricks, B., 711.
[quartz] inversion phenomena in silica bricks in the crowns of Martin furnaces, B., 711.
- Groves, R. C., mechanical analysis of heavy ferruginous soils, B., 382.
- Grubb, A. A., and Ohio Brass Co., pyrometer, (P.), B., 321.
- Grube, A., method and apparatus for spraying paints, lacquers, etc. for production of a coating upon surfaces, (P.), B., 827.
- Grube, G. [with Jaisle, J.], electrolytic preparation of magnesium from fused fluorides containing magnesium oxide, A., 376.
- Grube, G., and Brause, W., electromotive behaviour of complex cyanides of manganese and the cyanide, $K_2Mn(CN)_6$, A., 29.
- Grube, G., and Nussbaum, M., phase-rule study of the removal of sugar from molasses. I. Ternary system strontium oxide-sucrose-water, A., 480.
- Grube, G., and Schneider, K., inactivation of the surface of metals by diffusion. III. Diffusion of tungsten into iron and the resistance limits of iron-tungsten alloys, A., 138.
- Grube, G., and Staesche, M., ternary system manganous phosphate-phosphoric acid-water, and the manganodiphosphoric acids, A., 20.
- Gruber, H. See Vacuumsmelze Ges.m.b.H.
- Grün, A., Limpächer, R., and Schicht Akt.-Ges., G., preparation of phosphatides, (P.), B., 140*.
- Grün, R., deterioration of concrete by corrosive waters, B., 484.
- Grünbaum, A. See Snapper, I.
- Grünberg, A., application of Ghosh's theory to complex compounds, A., 18.
nature of the *cis*- and *trans*-isomerism of platinum salts, A., 817.
thiocyanates of bivalent platinum, A., 975.
- Grüneisen, E., metal crystals. VI. Temperature variation of the thermal resistivity of normal metals, A., 354.
- Grüss, H., and Schmick, H., thermal conductivity of gas mixtures, A., 1180.
- Grüss, J., microchemical identification of lactic acid, B., 150.
origin of yeast, B., 725.
- Grüss, J. See also Nagel, W.
- Gruessner, F. A., and Gruessner, G., treatment of finely-divided oxides [of zinc, tin, or lead] prior to reduction, (P.), B., 20.
precipitation of metals from solution by the addition of iron, (P.), B., 757.
- Gruessner, G. See Gruessner, F. A.
- Grütering, H. See Dilthey, W.
- Gruetter, T. W., combustion with the aid of a catalyst, (P.), B., 778.
- Gruner, E., constitution of ultramarine, A., 603.
- Gruner, J. W., oscillation method of X-ray analysis of crystals; analcite, A., 1314.
- Grunert, C. See Traube, W.
- Grunert, K., production of artificial silk filaments by drawing, (P.), B., 364*.
- Grunert, K., and Grunert & Giannetti, spinning of artificial filaments, especially artificial silk from cuprammonium solutions of cellulose, (P.), B., 889.
- Grunert & Giannetti. See Grunert, K.
- Grunewald, E., control of lubricating oil refining, B., 79.
- Grünke, W., and Kairies, A., action of adrenaline on the mobilisation of sugar in muscle, A., 1057.
- Grunow, G. See Leuchs, H.
- Gruse, W. A., Faragher, W. F., and Gulf Refining Co., recovery of paraffin [from slack wax], (P.), B., 359.
- Gruse, W. A. See also Marley, S. P.
- Gruzewska, Z. See Carnot, P.
- Gschöpf, R., production of natural-colour photographic pictures, (P.), B., 838.
- Guadagni, G., apparatus for the [continuous] formation of nitric acid or hydrochloric acid, (P.), B., 746.
- Guardabassi, M., preliminary hyperglycemia after [administration of] insulin, A., 553.
- Guardian Metals Co. See Donaldson, J. G.
- Gubarev, E., hydrogen peroxide as an oxidising agent in the Kjeldahl method for determining nitrogen, A., 498.
- Gubelmann, I., Lee, H. R., and Newport Co., preparation of leucoquinizarin, (P.), B., 255.
- Gubelmann, I., and Newport Co., preparation of 2-(or 3)-chloroquinizarin, (P.), B., 119*.
4'-amino-*o*-benzoylbenzoic acid, (P.), B., 224.
- Gubelmann, I., Tinker, J. M., and Newport Co., preparation of H-acid [8-amino-*o*-naphthol-3:6-disulphonic acid], (P.), B., 516.
- Gubelmann, I., Weiland, H. J., and Stallmann, O., manufacture of 2:4-dichloro-1-aminonaphthoquinone and intermediate products from *m*-dichlorobenzene and phthalic anhydride, (P.), B., 440.
- Gubelmann, I., Weiland, H. J., Stallmann, O., and Newport Co., 3'-nitro-4'-hydroxy-*o*-benzoylbenzoic acid, 3'-amino-4'-hydroxy-*o*-benzoylbenzoic acid, and 4'-hydroxy-*o*-benzoylbenzoic acid, (P.), B., 224.
3':5'-dinitro-4'-hydroxy-*o*-benzoylbenzoic acid, 3'-5'-diamino-4'-hydroxy-*o*-benzoylbenzoic acid, and 1:3-diamino-2-hydroxyanthraquinone, (P.), B., 316.
purification of 3:4-dichloroaniline, (P.), B., 474.
preparation of alkyl ethers of 3'-nitro-4'-hydroxy-*o*-benzoylbenzoic acid, (P.), B., 474.
- Gubelmann, I. See also Adams, R., and Weiland, H. J.
- Gubler, H. See Society of Chemical Industry in Basle.
- Gubser, A., fatty degeneration of the liver, A., 1156.
- Gucker, F. T., jun., accurate determination of the specific heats of salt solutions up to 80°; results for potassium nitrate and chloride solutions, A., 592.
- Gudden, B., new photo-electric observation with thin layers of alkali metals, A., 808.
- Gudris, N., and Kulikowa, L., photo-electric limits of the alkali halides, A., 459.
- Guéhen, G., effect of radioactive radiation on the dielectric constant of dielectrics, A., 460.
effect of radioactive radiation on the dielectric constant, A., 815.
- Gülich, carbonisation experiments at the Jena gasworks, B., 354.
- Gülker, F., preparation of hydrogen, (P.), B., 816.
- Gündel, W. See Pummerer, R.
- Güntelberg, E., and Schiödt, E., mean activity coefficient of the hydrogen ion, and of the hydrogen carbonate ion in potassium chloride and concentrated sodium chloride solutions; dissociation constant of some indicators in these solutions, A., 1093.
- Günther, A., is digallie acid identical with tannin as a mordant for basic dyes? B., 86.
- Günther, A., Haller, J., Köster, E., and Grasselli Dyestuff Corporation, dyeing [cotton] with basic dyes involving the use of arylamides of aromatic hydroxycarboxylic acids as mordants, (P.), B., 296*.
manufacture of side-chain [polynuclear] aromatic compounds, (P.), B., 740*.
- Günther, A. See also Thauss, A.
- Günther, E., Neubauer's seedling method [for determination of available phosphorus and potassium in soils], B., 26.
- Günther, E. See also Gerlach, M.
- Günther, H. See Weygand, C.
- Günther, P., Horst, H. D. von der, and Cronheim, G., action of X-rays on chloroform and analogous compounds, A., 1340.
- Günther, P. L. See Paneth, F.
- Günther, W., recovery of platinum metals from ores, (P.), B., 58.
- Günther, W. K., conservation of animal foodstuffs, (P.), B., 243.
- Günther-Schulze, A., cathode sputtering, A., 454.
- Günzler, H., Neubert, O., and Winthrop Chemical Co., Inc., disinfecting and insecticidal agent, (P.), B., 390.
- Günzler, H., Wesenberg, G., and Winthrop Chemical Co., stable mixture yielding salts of halogenosulphonamides, (P.), B., 8*.
- Günzler, H. See also I. G. Farbenind. A.-G.
- Gürber, A., and Gessner, O., "antithyroidin (moebius)," A., 676.
- Gueritte, A. T. J. See Robinson, P. J.
- Guéron, J., electrochemical study of the action of acids on solutions of some zinc salts, A., 1325.
- Guerrant, N. B., relations of the phospholipin in seeds to other constituents, A., 561.
- Guerrant, N. B. See also Salmon, W. D.
- Guerrini, G., avitaminosis and autoclave-sterilised food, A., 676.
- Gürtler, J. See Kircheisen, T.
- Guertler, W., theory of the age-hardening process in structural and montegal [aluminium alloys], B., 195.
corrosion of aluminium, B., 302.
- Guertler, W., and Ackermann, W., resistance of pure chromium-nickel-iron alloys to corrosion by acids, B., 753.
- Guertler, W., and Anastasiadis, L., allotropic transition point of aluminium, A., 353.
- Guest, H. H., rearrangements of the triple linking, A., 988.

- Guest, P. G. See Coward, H. F.
 Guevara, T. See Berlitzky, A.
 Guggenbuhl, G. A. See Rupe, H.
 Guggenheim, D., Guggenheim, M., Guggenheim, S. R., Guggenheim, S., MacGowan, J. K., Smith, E. A. C. (Guggenheim Bros.), and Fischer, A. H., flotation processes, (P.), B., 373, 413, 788.
 Guggenheim, E. A. See Brönsted, J. N.
 Guggenheim, M. See Guggenheim, D.
 Guggenheim, S. See Guggenheim, D.
 Guggenheim, S. R. See Guggenheim, D.
 Guggenheim Bros. See Fischer, A. H., and Guggenheim, D.
 Gugler, M., *in vitro* respiration of the tissues of beri-beri pigeons, A., 1395.
 Guglielmelli, L., and Novelli, A., cyclic thiocarbamides derived from fluorene, A., 629.
 Guglielmelli, L., Novelli, A., Ruiz, C., and Anastasi, C., preparation and constitution of thiocarbamides of fluorene, A., 748.
 Guha, P. C., and Ghosh, T. N., *o*-aminophenylhydrazine and heterocyclic compounds derived from it. III. and IV. Lengthened *o*-di-derivatives of benzene and their ring-closure, A., 431, 1263.
 Guha, P. C., and Ray-Chaudhury, S. K., hetero-ring formations with thiocarbonylhydrazide. III. Reactions of substituted thiocarbonylhydrazides. IV. Reactions of 1-phenylthiocarbonylhydrazide, A., 779.
 Guibert, See Carrière.
 Guichard, Clausmann, and Billon, hydrogen content of metals and alloys containing a trace of oxide, A., 602, 1087*.
 variation of the composition of alloys of silver and copper melted in contact with air, B., 714.
 deoxidation of silver castings, B., 714.
 Guilbert, H. R. See Mead, S. W.
 Guillaume, C. E., anomalies in nickel-steels and their applications, B., 301.
 Guillaumin, A., maintenance of seeds in a medium deprived of oxygen as a means of prolonging their germinative faculty, A., 1289.
 Guillemet, H. See Hanot, (Mme.) M.
 Guillemet, R. See Boivin, A.
 Guillemin, J. J. J., impregnation of leather, (P.), B., 795.
 Guilleminot, P., hypersensitisation and ultrasensitisation [of positive plates], B., 37.
 Guillet, L., [heredity of iron castings], B., 94.
 use of nickel in automobile and aviation industries, B., 126.
 application of the nitridation of certain special steels, B., 449.
 Guillet, L., and Ballay, influence of composition and cold-working on corrosion and increase of grain size of aluminium, B., 862.
 Guillet, L., Galibourg, and Ballay, critical points and the martensitic tempering of nickel and nickel-chromium castings, B., 607.
 Guillin, R., integral dissociation of silicates by carbonic and humic acids [in soils], and succeeding reactions, B., 906.
 Guimarães, D., arrojadite, a new mineral of the wagnerite group, A., 603.
 eschwegite, A., 503.
 Guinchant, See Cordonnier.
 Guinot, H. See Ricard, E.
 Guittonneau, G., influence of sulphur and soluble sulphur compounds in soil on nitrification, B., 134.
 Gukhman, L., improving viscosities (cylinder stocks), B., 661.
 Gulaeva, O. J. See Tronov, B. V.
 Gulbas, G. See Gränacher, C.
 Gulbransen, R. See Browning, C. H.
 Gulf Refining Co. See Buerger, C. B., Gruse, W. A., Marley, S. P., and Prichard, G. L.
 Gulland, J. M., condensation of certain aldehydes with ketones of the morphine group, A., 532.
 Gulland, J. M., and Haworth, R. D., aporphine alkaloids. I. Synthesis of 5:6-dimethoxyaporphine, A., 532.
 aporphine alkaloids. II. Synthesis of bulbocapnine methyl ether, A., 781.
 aporphine alkaloids. III. Synthesis of corytuberino dimethyl ether, A., 1030.
 aporphine alkaloids. IV. Synthesis of morphothebaine dimethyl ether, A., 1145.
 Gulland, J. M., and Virden, C. J., constitution of thebenine, A., 653.
 isomeric 2-amino-*o*-arylcinamic acids, A., 883.
 Gümlich, E., magnetisable material [alloy], (P.), B., 413*.
 Gunder, A., use of the centrifuge in quantitative analysis; [determination of sulphur], A., 857.
 stand for electrolysis with a rotating electrode, A., 863.
 Gunderson, L. O., electrochemical polarisation process for prevention of corrosion in locomotive boilers, B., 732.
 Gundlach, H. See Sweet, A. T.
 Gunn, G., preservation of wood; timber, etc., (P.), B., 369, 817*.
 Gunn, J. See Contraffio Engineering Co., Ltd.
 Gunnell, W. B. See Chittenden & Simmons, Ltd.
 Gupta, A. W. See Bhatnagar, S. S.
 Gupta, J. L. D. See Varma, P. S.
 Gupta, N. C. D. See Warth, F. J.
 Gupta, P. See Mitter, P. C.
 Gupta, R. S. See Mathur, K. G.
 Gurewitsch, (Frl.) E. See Kohn, M.
 Gurney, J., Perkin, W. H., jun., and Plant, S. G. P., new stereoisomeride (*trans*-) of hexahydrocarbazole, A., 72.
 Gurney, R. W., particles of high velocity in the chromosphere, A., 685.
 scattering of positive ions from a platinum surface, A., 1169.
 Gurney, R. W., and Condon, E. U., wave mechanics and radioactive disintegration, A., 1170.
 Gurwitsch, A., and Gurwitsch, L., ultra-violet chemiluminescence of cells in relation to the problem of carcinoma, A., 914.
 Gurwitsch, L. See Gurwitsch, A.
 Gusseva, K. See Rutovski, B. N.
 Gustafson, A. T., production of articles from rubber and other thermoplastic substances, (P.), B., 419.
 Gustafson, O. W., hardening of copper and copper alloys, (P.), B., 128.
 Gustafsson, E. See Hedvall, J. A.
 Gustafsson, E. G. T., production of metals from oxide ores, (P.), B., 96.
 producing metals from their sulphides in electric furnaces, (P.), B., 757.
 production of metals in electric furnaces, (P.), B., 790.
 Gustafsson, E. G. T. See also Flodin, H. G.
 Gustavson, R. G. See Cohn, B. E.
 Gustin, D. S., and Westinghouse Lamp Co., production of a high vacuum in vessels [electric lamps], (P.), B., 59.
 evacuation of bulbs and other vessels, (P.), B., 98.
 manufacture of [gas-filled] incandescence electric lamps, (P.), B., 162.
 Gustus, E. L. See Jacobs, W. A.
 Gutbier, A., and Weithase, H., colloid syntheses with the aid of titanium trichloride. VI. Colloidal palladium, A., 359.
 Gutehoffnungshütte Oberhausen A.-G., Wagner, A., and Pohl, E., blast tuyères for shaft furnaces, (P.), B., 528.
 Guthke, F. W., manufacture of explosives, (P.), B., 245.
 Guthner, R. See Sadikov, V. S.
 Guthrie, A., automatic time switch for prolonged heating, etc., A., 1209.
 Guthrie, A. See also Shoemith, J. B.
 Guthrie, F. C., devices for increasing accuracy in weighing, A., 609.
 Gutlohn, L. See Chemische Fabrik Frankfurt-West Landauer & Co.
 Gutta Percha & Rubber, Ltd., and Moriarty, J. J., treatment of rubber articles, (P.), B., 132.
 Guttenberg, R., *Curcuma magna* rhizome, A., 334.
 Gutteridge, H., modern Portland cement plant, B., 334.
 Gutton, C., and Mihul, (Mlle.) J., permeability of iron at high frequencies, A., 114.
 Gutzschke, F., etching of [aluminium] printing plates, (P.), B., 608.
 Gutzwiller, E. See Fichter, F.
 Gwosdz, J., possibilities of increasing the gas efficiencies in water-gas and producer-gas manufacture, B., 630.
 Gwyer, A. G. C., Phillips, H. W. L., and British Aluminium Co., Ltd., [aluminium-silicon] alloys, (P.), B., 198*.
 alloy, (P.), B., 677*.
 Gwyer, A. G. C., Phillips, H. W. L., and Mann, L., constitution of the alloys of aluminium with copper, silicon, and iron, B., 754.
 Gyemant, A., theory of strong electrolytes, A., 953.
 high-resistance liquid, A., 986.
 Gynge, E. S., alkaline hydrolysis of esters in aqueous-alcoholic solution. II. Interaction of phenoxides and aliphatic esters, A., 961.

- György, K., [portable] apparatus for producing heat or coldness by means of chemical reactions, (P.), B., 802.
- György, P., Keller, W., and Brehme, I., development and metabolism of the kidney, A., 1396.
- Györgyi, G. See Kürti, L.
- Gyotoku, K., lipase. I. Optimum action of gastric lipase. II. Lipase of organs and its resistance to acids and alkalis. III. Action of quinine on lipase of organs, A., 445.
- Gyulai, Z., ultra-violet dispersion of alkali halides, A., 348.
- H.
- Haack, E. See Pfeiffer, P.
- Haag, J. R., and Palmer, L. S., effect of variations in calcium, magnesium, and phosphorus of the diet, A., 442.
- Haagn, E., and Heraeus G.m.b.H., W. C., production [melting] of alloys of the platinum metals, (P.), B., 270.
- Haakh, H., manufacture of felt, (P.), B., 48.
- Haar, A. W. van der, saponins and related substances. XVIII. Sugar-beet sapogenin. XIX. Identity of beet saponin with olcanol, the phytosterol-like substance from olive leaves, and with caryophyllin from cloves, A., 68.
- action of acetic anhydride on carboxylic acids, A., 393.
- saponins and related substances. XX. Ursolic acid. II. Action of acetic anhydride on ursolic acid, A., 644.
- Haarmann, W. See Hahn, A.
- Haas, H., polarisation of the iron K α -radiation, A., 339.
- Haas, M., dilatometric study of light metals, B., 371, 676.
- Haas, M., and Pöttken, O., galvanising duralumin, B., 56.
- Haase, C. See Masing, G.
- Haase, H. See Sabalitschka, T.
- Haase, H. G., cast iron resistant to acids and alkalis, B., 195.
- Haase, J., Hibner, O., and Haase, J., air cleaner, (P.), B., 508.
- Haase, L. W., determination of oxygen in drinking and river water, B., 38.
- chlorination of water, B., 466.
- chemical and physical properties of water in relation to corrosion and protection against corrosion, B., 914.
- Haase, L. W., and Thiele, Heinrich, photo-electric turbidimeter, B., 454.
- Haase, M., optical properties of the highly refractive isostructural compounds of magnesium, calcium, strontium, and barium with oxygen, sulphur, selenium, and tellurium, A., 694.
- dispersion of magnesium sulphide, A., 816.
- Haase, M. See also Spangenberg, K.
- Haba G.m.b.H. für industrielle Beteiligung, and Weithöner, R., manufacture of oil colours and impregnation materials from petroleum pitch, (P.), B., 792.
- Haber, E. S., influence of the soil reaction on the ionisable constituents of the tomato as determined by electrodialysis, A., 1406.
- Habermann, A., centrifugal dryers and separators, (P.), B., 143.
- Hablutzel, C. E. See Parks, G. S.
- Habs, H., changes in muscle following repeated faradic stimulation, A., 545.
- Habs, H. See also Burger, M., and Embden, G.
- Hachihama, Y., "saccharate" process and the phase rule. II. System sucrose-barium oxide-water at 75°, A., 243.
- Hackenbroich, C., apparatus for dyeing of fabrics, (P.), B., 926.
- Hacker, P. See Deussen, E.
- Hackford, J. E., burning of oil fuel, (P.), B., 252.
- Hackiewicz, B. See Broniewski, W.
- Hackl, J. See Haller, R.
- Hackl, O., microchemical detection of silver as sulphate, A., 980.
- alteration of gas samples when kept and precautions against it, B., 157.
- Hackmaster, G. H., odour control [of crude sewage] by chlorination at Independence, Kan., B., 142.
- Hackstedde, H. H., mixing machine, (P.), B., 430.
- Haquaert, A. L., greenish satinspar (calcite) from Kipushi, Katanga, A., 503.
- intrusive rock of Muno (Luxemburg) and metamorphism produced by it, A., 987.
- Haddon, E., presence of starch in Uba cane juice, B., 102.
- Hadfield, G. H., brick making, (P.), B., 368.
- Hadfield, J. See Bennett, J. F.
- Hadfield, (Sir) R. A., manufacture of steel, (P.), B., 821*.
- Hadjieff, M. D., determination of sugars from the oxygen in the cupric oxide, B., 939.
- Hadnagy, Z., and Lanyi, L., preservation of wood, (P.), B., 896.
- Häbler, C., and Weber, K., fall of osmotic pressure and of hydrogen-ion concentration in the arterial blood and the blood of the portal and hepatic veins, A., 910.
- Hägg, G., X-ray studies on the "nitrides" of iron, A., 605, 1081.
- Hägg, G. See also Egner, H.
- Hägglund, E., pulping of pine wood by the sulphite process. I. and II., B., 48, 328.
- treatment of the black liquor obtained in the manufacture of wood fibre by the soda process, (P.), B., 188, 744*.
- determination of the degree of decomposition of sulphite-celluloses, B., 564.
- sulphite-cellulose cooking [with a mixture of old and new cooking acids], B., 888.
- influence of temperature on sulphite-cellulose cooking, B., 924.
- Hägglund, E., and Johnson, T., [fluorescence of sulphite pulp], B., 154.
- Hägglund, E., and Klingstedt, F. W., characterisation of cellulose preparations by the rotation method, B., 119.
- alteration of cellulose by action of bisulphites, B., 705.
- carbohydrate constituents of sodium hydroxide cellulose from pine wood, B., 742.
- Hägglund, E., Klingstedt, F. W., Rosenqvist, T., and Urban, H., carbohydrates of the readily hydrolysable hemicellulose of the pine, A., 1119.
- Hägglund, E., and Ringbom, A., sulphite addition to unsaturated compounds. II., A., 375.
- Hägglund, E., and Urban, H., lignin acetals. II., A., 743.
- Hähle, H. See I. G. Farbenind. A.-G.
- Haehn, H., and Stern, J., kinetics of the tyrosinase of potatoes, A., 1055.
- Haehn, H. See also Einsiedler Brauhaus.
- Haehnel, O., intercrystalline brittleness of lead, B., 196.
- Haehnel, W. See Herrmann, W. O.
- Hämmerle, E. See Beaucourt, K.
- Haensel, W. See Braun, J. von.
- Härtel, F., detection of coconut oil in cacao butter and cocoa preparations, B., 163.
- Häusler, H., and Weeber, R., hormonal processes after administration of dextrose. IV. Detection of insulin in human blood after peroral administration of dextrose, A., 448.
- Häussler, A., and Boehringer Sohn, C. H., production of quinoline-4-carboxylic acids, (P.), B., 837.
- Hafenrichter, A. L. See Hottes, C. F.
- Haffner, F., and Pulewka, P., photo-activation of cod-liver oil, A., 256.
- Haga, S., catalytic decomposition of soya-bean oil by active carbon, B., 201.
- Hagan Corporation, extraction of extraneous material from fluids or gases, (P.), B., 353, 508.
- Hagen, C., adhesion phenomenon of mercury, and a new manometer, A., 40.
- Hagen, S. K., nitrocelluloses soluble in alcohol, B., 38.
- determination of hydrocyanic acid in Lima beans with special reference to the most favourable pH for glucoside fission, B., 689.
- Hager, F. D., [preparation of] triphenylamine, A., 629.
- Hager, F. D. See also Johnson, J. R., and Marvel, C. S.
- Hagiwara, K., manufacture of artificial silk and like filaments, (P.), B., 329.
- Hagiwara, K. See also Iwasaki, T.
- Hagiwara, T. See Weimarn, P. P. von.
- Haglund, T. R., production of aluminium oxide or products containing it from material containing aluminium sulphide, (P.), B., 482.
- production of aluminium oxide and other aluminium compounds, (P.), B., 747.
- production of aluminium chloride, (P.), B., 815.
- Haglund, T. R., and International Patent Corporation, treatment of ores containing refractory oxide, (P.), B., 610*.
- Hagues, G., hydrogen ions in brewing processes. IV., B., 620.
- Hahl, H., and Winthrop Chemical Co., Inc., manufacture of complex antimony compounds, (P.), B., 625*.
- Hahn, A., Fischbach, E., and Haarmann, W., dehydrogenation of lactic acid, A., 1281.
- Hahn, A., and Haarmann, W., dehydrogenation of succinic acid, A., 323.
- dehydrogenation of malic acid. I., A., 1054, 1281.

- Hahn, A. W., and Nokes, C. M., flotation process for sulphide minerals, (P.), B., 21.
- Hahn, D. A., and Evans, (Miss) J., action of light on the isomeric modifications of certain polypeptide-hydantoins, A., 74.
- synthesis of the polypeptide hydantoin glycyl-3-methylphenyl-alaninehydantoin, A., 530.
- Hahn, F. L., reaction between atmospheric oxygen and strongly acid iodide solutions in presence and absence of arsenic acid, A., 718.
- Hahn, F. L., Frommer, M., and Schulze, R., following the course of the reaction in potentiometric titrations, A., 857.
- Hahn, F. V. von, and Thölcke, A. F., technical sedimentation analysis. III., B., 839.
- Hahn, G., and Stenner, W., yohimba alkaloids. IV., A., 432.
- Hahn, M., and Eisenberg, K. B., material for damping sound and other waves, (P.), B., 929.
- Hahn, O., protoactinium as a radioactive and chemical element, A., 343.
- Hahn, O. [with Bobek, F.], method of determining the absolute magnitude of surfaces, A., 947.
- Hahn, O., and Grosse, A. von, β -rays of proto-actinium, A., 569.
- Hahn, O., and United States Radium Corporation, manufacture of a radium preparation, (P.), B., 231.
- Hahn, O., and Walling, E., half-value period of protoactinium; quantity in uranium minerals and uranium residues, A., 455.
- Hahn, O. See also Bodenstein, M.
- Hahn, R. See Kalb, L.
- Haigh, B. P., relation of hysteresis to cohesion and fatigue in metals, A., 111.
- Haigh, L. D., effect of silica dishes in the determination of potassium, A., 725.
- Hailwood, A. J. See British Dyestuffs Corporation, Ltd.
- Hain, G., air filter, (P.), B., 508.
- Haines, R. B. See Cooper, E. A.
- Haitinger, M., Jörg, H., and Reich, V., behaviour of fats and oils in ultra-violet light, B., 678.
- Haitinger, M., and Reich, V., changes of fluorescent colours in ultra-violet light, A., 1161.
- Hájek, A. See Schneider, J., jun.
- Hakomori, S., reaction of several metallic ions in the presence of tartaric acid, A., 260.
- Halban, H. von, and Eisenbrand, J., condition of strong electrolytes in concentrated solution. I. and II. Nitrates, A., 590.
- measurement of light absorption, A., 933.
- Halban, H. von, and Zimpelmann, E., application of photo-electric spectrophotometry to micro-analysis, A., 1109.
- Haldane, J. B. S., affinity of different types of enzyme for their substrates, A., 327.
- Haldane, J. H., inversion losses in gur sugar manufacture in North Behar, B., 562.
- Halden, G., variations in the constants of the oils of certain *Leguminosae*, A., 1290.
- Halden, W., classification of fats. I., B., 678.
- Hale, F. E. See Mner, H. F.
- Hale, W. J., and Britton, E. C., development of synthetic phenol from benzene halides, A., 222.
- Haley, D. E., and Holben, F. J., biological measurement of available soil potassium, B., 63.
- Haley, D. E. See also Mack, W. B.
- Hall, A. J., and Silver Springs Bleaching & Dyeing Co., Ltd., dyeing of cellulose acetate products in black shades, (P.), B., 189*.
- Hall, A. J. See also Silver Springs Bleaching & Dyeing Co., Ltd.
- Hall, C. A., apparatus for making leaden powder [litharge], (P.), B., 604*.
- Hall, D., Kay, J. H., and Hall & Kay, Ltd., apparatus for removing dust and other solid matters from air and other gases, (P.), B., 145.
- Hall, F. H., Sommerfeld's electron theory of metals, A., 825.
- electron "free path" and super-conductivity in metals, A., 825.
- Hall, E. H. See also Reckitt & Sons, Ltd.
- Hall, E. J., and Metals Disintegrating Co., Inc., disintegration of metals, (P.), B., 235*.
- Hall, F. G., blood concentration in marine fishes, A., 538.
- Hall, F. J. See Iserman, S.
- Hall, F. W., and Texas Co., manufacture of lubricating oils, (P.), B., 438.
- Hall, H. C., and Bradbury, T. F., aluminium alloy, (P.), B., 128.
- treatment of aluminium alloys, (P.), B., 610.
- Hall, H. W., and American Smelting & Refining Co., apparatus [furnace] for smelting, (P.), B., 788.
- Hall, I. C. See Peabody, W. A.
- Hall, J. A., and George, W. F. C., treatment of wheat and other cereals, (P.), B., 911.
- Hall, N. See British Dyestuffs Corporation, Ltd.
- Hall, N. F., and Conant, J. B., superacid solutions. I. Use of chloranil electrode in glacial acetic acid and strength of certain weak bases, A., 129.
- Hall, N. F., Jenson, M. A., and Baekström, S. A., differential potentiometric titration, A., 977.
- Hall, N. F., and Werner, T. H., superacid solutions. III. Titration and dilution curves of bases dissolved in acetic acid, A., 1188.
- Hall, N. F. See also Conant, J. B.
- Hall, R. D., and Westinghouse Lamp Co., borating of Dumet wire, (P.), B., 58.
- Hall, R. E., filtration of alkaline waters, (P.), B., 626, 876*.
- Hall, R. E., and Hopwood, J. M., determining the concentration of turbid suspensions, (P.), B., 802.
- Hall, R. E., and Koppers Co., recovery of sodium thiocyanate [from gas liquors], (P.), B., 6.
- Hall, R. E., Smith, G. W., Jackson, H. A., Robb, J. A., Karch, H. S., and Hertzell, E. A., physico-chemical study of scale-formation and boiler-water conditioning, B., 70.
- Hall, R. H. See Clark, R. H.
- Hall, T., and Houtz, R. L., testing [the strength of] gelatinous substances, (P.), B., 101.
- Hall, W. T., oxalate method for separating calcium and magnesium, A., 1347.
- Hall & Kay, Ltd. See Hall, D.
- Halle, H. J., and Universal Oil Products Co., refining of hydrocarbon oils, (P.), B., 884.
- Haller, H. L. See Levene, P. A.
- Haller, J., and Grasselli Dyestuff Corporation, azo-dyes, (P.), B., 599.
- Haller, J. See also Günther, A.
- Haller, P., and Kappeler, H., manufacture of condensation products of arylamines, (P.), B., 224, 792.
- Haller, R., [printing of] green discharges on [indigo-]blue ground, B., 49.
- [printing of] reserves under indanthrene dyes, B., 121.
- production of printed effects with combinations of anthraquinone and indigoid vat dyes, B., 890.
- Haller, R., Hackl, J., and Frankfurt, M., dyestuffs fast to ironing. III., B., 183.
- effect of light on indigo-dyed [cotton] fabric, B., 479.
- Haller, R., and Seidel, P., effect of adding oxidants in the steeping process [in bleaching], B., 565.
- Hallett, L. T. See Kemmerer, G.
- Halliburton, E. P., apparatus for mixing and proportioning [liquid and solid] materials, (P.), B., 40.
- Halliday, N. See Kohman, E. F.
- Hallimond, A. F., chemical classification of the mica group. III. Molecular volumes, A., 42.
- atomic volume relations in certain isomorphous series. I. and II., A., 107, 942.
- Hallitt, W. See Broadbent & Sons, Ltd., T.
- Hallock, G. W. See Gero, W. B.
- Halman, E. T., digestibility trials with poultry. IV. Digestibility of certain varieties of oats. V. Digestibility and feeding value of Bulrush millet. VI. Influence of the size of the ration on its digestibility, A., 1397.
- Haloff, G. A., toxicology of certain chlorine derivatives of methane and ethane, A., 1155.
- Halowax Corporation. See Brown, S.
- Halton, P. See Fisher, E. A.
- Halvorsen, V. V., nitrogen metabolism of nitrogen-fixing bacteria, A., 552.
- Halvorsen, B. F., Falck, H. J., Ravner, O., and Norsk Hydro-elektrisk Kvaestofaktieselskab, production of alumina from aluminium nitrate, (P.), B., 90.
- Halvorsen, H. O. See Starkey, R. L.
- Ham, W. R., reflexion of electrons from molybdenum, A., 1301.
- Hamada, H. See Okubo, J.
- Hamada, M., thermal constants and strength of concrete of light aggregates, B., 929.
- Hamamura, Y. See Suzuki, B.
- Hamasumi, M., eutectic crystals, A., 1085.
- mechanical properties of low-manganese steel, B., 897.

- Hamburtzer, V. A. See Akovbians, G. A.
- Hamel, C., spinning machines for artificial silk, (P.), B., 668.
- Hamer, (Miss) F. M., preparation of carbocyanine dyes, A., 76.
 ψ-cyanine condensation, A., 307.
 neocyanine, A., 904.
- Hamer, (Miss) F. M. See also Bloch, O.
- Hamer, R., and Singh, S., critical potentials of copper, A., 1298.
 critical potentials of iron, A., 1298.
- Hamid, M. A., cyclic processes involved in the manufacture of sodium nitrate from Chilean caliche, B., 481.
- Hamilton, C. S., and Jelinek, V. C., dicarboxyphenylarsinic acids. II. 3:4-Dicarboxyphenylarsinic acid and some of its derivatives, A., 189.
- Hamilton, C. S., and Parke, Davis & Co., [organic] arsenical compound, (P.), B., 427.
- Hamilton, E. R., apparatus for the treatment of hydrocarbon compounds, (P.), B., 596.
- Hamilton, R. H., *jun.*, determination of dextrose in normal urine, A., 914.
- Hamilton, S. N. See Shutt, F. T.
- Hamilton, T. S., and Adams, R., reduction of pyridine hydrochloride and pyridinium salts by means of hydrogen and platinum oxide platinum-black. XVIII., A., 1140.
- Hamilton, W. F. See Masson, H. J.
- Hamlin, M. L., and Beech-Nut Packing Co., production of jelutong products, (P.), B., 650.
- Hammarsten, G., titration of ammonium phosphomolybdate, A., 263.
- Hammel, E. W. M., manufacture of manure, (P.), B., 280.
- Hammer, A. See Baier, G.
- Hammett, L. P., theory of acidity, A., 1325.
- Hammick, D. L., Cousins, W. R., and Langford, E. J., internal equilibrium in liquid sulphur. I., A., 592.
- Hammick, D. L., and Zvegintsov, M., pseudo-ternary systems containing sulphur. III. System sulphur-sulphur monochloride, A., 956.
- Hammond, C. F., and Shackleton, W., concentration or purification of caustic soda or other suitable material, (P.), B., 403*.
 concentrators, dehydrators, and like apparatus [evaporation by submerged flame], (P.), B., 507.
 apparatus for boiling or raising the temperature of water and other liquids, (P.), B., 659*.
 heat-treatment processes and apparatus in which a hot liquid mass [of metal] is employed, (P.), B., 696.
 process and apparatus [with submerged burner] for dyeing or washing articles of clothing, fabrics, etc., (P.), B., 813.
- Hammond, W. H., detection of zinc in presence of iron, B., 449.
- Hammond, W. P. See Buel, H.
- Hamous, J., device for the preparation of solutions of constant density, B., 589.
- Hamp, H. See Schwarz, K.
- Hampson, A. C., and Maizels, M., difference of p_H between plasma and red cells, A., 662.
- Hampton, W. M., coloured glasses, B., 784.
- Hamsik, A., modifications of hydroxyhæmin, A., 1263.
 preparation of the unchanged modification of oxyhæmin and chlorohæmin, A., 1148.
- Hanahan, M. L. See Booge, J. E.
- Hanai, S., micro-determination of sulphur in an organic compound, A., 1267.
- Hanai, S. See also Kubota, B.
- Hanaman, F., metallographic investigation of metallic material [boiler tube], B., 19.
- Hanciau, G. C. E. F., recovery, separation, or extraction of gold, platinum, and other metals, applicable also for separation of precious stones from earth or material containing them, (P.), B., 610*.
- Hancock, J. S., and Macmenigall, W. H., method and means for preparing a wet mixture of fibre and cementitious material, (P.), B., 16.
- Hancock, J. W. See Hancock, W. T.
- Hancock, W. T., and Hancock, J. W., oil-cracking still, (P.), B., 806.
- Hand, C. N. See Rubber Service Laboratories Co.
- Hand, D. B. See Sumner, J. B.
- Hand, P. G. T., and Shiels, D. O., sorption of water vapour by activated charcoals. I. Apparatus, technique, and nature of charcoals used, A., 471.
- Handley, A. C., filters for air or gases, (P.), B., 507.
- Handley, F. W. See Hodgson, H. H.
- Handovsky, H., oxidation catalytic action of iron, A., 718.
 utilisation of carbohydrate in mammals, A., 920.
 action of insulin. I. and II., A., 1286.
 mechanism of action of hydrocyanic acid; functional significance of glutathione. I., A., 1400.
- Handritschk, C. See Heiduschka, A.
- Hands, H. J., and Spicers, Ltd., manufacture of sheets, pellicules, or films of cellulose esters and ethers, (P.), B., 187.
 compositions containing derivatives of carbohydrates [used as photographic supports], (P.), B., 213.
 compositions containing cellulose esters and ethers, etc., (P.), B., 229.
 manufacture of a cellulose-derivative film, (P.), B., 364*.
 production of cellulose ester and ether compositions, (P.), B., 310.
- Hands, H. J. See also Spicers, Ltd.
- Handy, A. See Holmes, E. O., *jun.*
- Handy, J. A., and Hoyt, L. F., methyl phthalate and other esters of o-phthalic acid, A., 885.
- Handy, J. O., and Primos Co., production of a lead product [recovery of lead from storage battery waste], (P.), B., 98.
- Haney, C. I. See British Celanese, Ltd.
- Hanke, M. T., determination of tyrosine in proteins, A., 1389.
- Hanke, M. T. See also Seibert, F. B.
- Hanle, W., excitation function of spectral lines, A., 677.
- Hanley, S. A. See Ramann, E.
- Hanley, W. L., *jun.*, dry-pan grinding apparatus, (P.), B., 2.
 tunnel kiln, (P.), B., 92*, 124.
- Hann, R. M., and Jamieson, G. S., 2-methyl-5-isopropylanilides of some higher fatty acids, A., 748.
- Hann, R. M. See also Berliner, J. F. T., Holmes, W. C., Jamieson, G. S., and Jones, H. A.
- Hanna, H. M. See Wetherbee, H. E.
- Hanna, M. I., modification of the MacLean-Van Slyke method for the determination of chloride in blood, A., 1391.
- Hanna, R. J. See Hanna, R. W.
- Hanna, R. W., Hanna, R. J., and Standard Oil Co. of California, distillation of petroleum oils, (P.), B., 116.
- Hanna, R. W., and Standard Oil Co. of California, distillation of petroleum oil, (P.), B., 149.
 distillation of lubricating oils, (P.), B., 358.
- Hanna, R. W., and Universal Oil Products Co., controlling the destructive distillation of petroleum oil, (P.), B., 291.
- Hannach, O., refrigerating compounds, (P.), B., 659.
- Hannan, G. R. See Petrie, E. J.
- Hannon, R. R. See McClellan, W. S.
- Hanot, (Mlle.) M., width of the lines of the Balmer series, A., 209, 1065*.
 hydrogen rays in the electric arc, A., 806.
- Hanot, (Mlle.) M., and Guillemet, H., laws of photographic blackening when the luminous source is a series of electric sparks, A., 602.
- Hanovia Chemical & Manufacturing Co., water-cooled mercury vapour arc lamps, (P.), B., 791.
- Hansard, H. H., manufacture of fuel briquettes, (P.), B., 593.
- Hanseatische Apparatebau Ges. See Deutsche Gasglühlicht-Auer-Ges.m.b.H.
- Hansen, A., kiln, (P.), B., 71.
- Hansen, Albert, determination of iodine values by means of aqueous solutions, B., 454.
- Hansen, Anneliese, Riesser, O., and Nagaya, T., colorimetric determination of lactic acid, A., 1064.
- Hansen, G., fine structure of Balmer lines, A., 97.
- Hansen, M., age-hardening of silver-aluminium alloys rich in aluminium, A., 698.
 structure of silver-aluminium alloys with a high content of aluminium, A., 829.
 tin bronzes, B., 371.
- Hansen, M., and Sachs, J., electrical conductivity of silver alloys, A., 578.
- Hansen, N. A. See Marvel, C. S.
- Hansen, P., apparatus for measuring hydrogen-ion concentrations, B., 505.
- Hansen, W., gas analysis in an Opl tower plant, B., 926.
- Hansen, W. C., system $2\text{CaO} \cdot \text{SiO}_2 - \text{MgO} - 5\text{CaO} \cdot 3\text{Al}_2\text{O}_3$, A., 1095.
- Hansen, W. C., and Brownmiller, L. T., equilibrium studies on alumina and ferric oxide, and on combinations of these with magnesia and calcium oxide, A., 480.

- Hansen, W. C., Brownmiller, L. T., and Bogue, R. H., system calcium oxide-alumina-ferrie oxide, A., 367.
- Hansen, W. W. See Webster, D. L.
- Hansena Akt.-Ges., and Nathan, L., treatment of beer wort and beer or other foaming liquids, (P.), B., 104.
- Hansford, J., and Hughes, J. S., manufacture of gas, (P.), B., 396.
- Hansgird, F. See Stransky, S.
- Hansley, V. L. See Hoover, C. P.
- Hanson, A. J., and American Metallurgical Corporation, electric resistance furnace, (P.), B., 98.
- Hanson, D. See Everest, A. B.
- Hanson, G., zoning of mineral deposits in British Columbia, A., 268.
- Hanson, N. W., and James, T. C., addition of halogens to unsaturated acids and esters. I. Addition of equimolecular mixtures of bromine and chlorine to cinnamic acid and its derivatives in non-hydroxylic solvents, A., 1004.
- Hanson, T. H. See Forster, R. B.
- Hanssen, R. See Wächterowitz, A.
- Hantschmann, L., and Steube, M., amino-acids in blood in tuberculosis, A., 1396.
- Hantzsch, A., light absorption of some salts, A., 812.
- constitution of acids and salts, and their chemical changes in solvents, A., 834.
- thiocyanacetone, its isomerides and polymerides, A., 1218.
- Hantzsch, A. [with Schwedler, H., and Schwaneberg, H.], hydroxythiazoles or thiazolones, A., 187.
- Hantzsch, A., and Berger, K., nitronium or nitracidium salts and the cationic migration of nitric acid, A., 855.
- Hantzsch, A., and Dürigen, F., chemical changes of acids and salts in solution based on refractometric data, A., 834, 1089.
- Hanzlik, P. J., De Eds, F., Empey, L. W., and Farr, W. H., haemoclastic changes *in vitro* from agents causing anaphylactoid reactions, A., 439.
- Happer, J. R. See Russell, D.
- Hara, R. See Abe, S., and Sinozaki, H.
- Harada, K. See Oya, T.
- Harada, M. See Nakagawa, T.
- Harada, Y., intermediary carbohydrate metabolism. XXIII. Lactic acid formation by the liver on perfusion with lævulose, A., 86.
- Harbens (Viscose Silk Manufs.), Ltd., and Sharples, W. E., spindles of spinning machines for artificial silk, etc., (P.), B., 638.
- Harbens (Viscose Silk Manufs.), Ltd. See also Janssen, H. J. J.
- Harber, L. S. See Baker Perkins, Ltd.
- Harbord, V., comparison of the most important methods employed in the cleaning of blast-furnace gas, B., 406.
- Harden, A., and Macfarlane, M. G., fermentation by dried yeast preparations. II., A., 797.
- Harden, W. C., salicylsulphonaphthalein and its tetrabromo- and monomercure derivatives, A., 177.
- Harden, M. See Freudenberg, K.
- Hardikar, S. D., oil from *Pinus Gerardiana*, chilgoza oil. I., B., 340.
- Harding, E. A. See Brown, M. J.
- Harding, E. P., and Dumke, W. H., distribution of sulphur in [American] oil shale. II., B., 559.
- Harding, E. R., properties and uses of an edible rice cellulose, B., 384.
- Hardtmann, M. See Hentrich, W.
- Hardy, D. V. N. See Boyd, D. R.
- Hardy, F., an index of soil texture, B., 382.
- Hardy, R. K. See Carter, J. S.
- Hardy, (Sir) W. B., and Nottage, (Miss) M. E., adhesion. II., B., 287.
- Hare, D. C., and International Reduction Co., treatment of ores, (P.), B., 198*.
- Hare, M. L. C., tyramine oxidase. I. An enzyme system in liver, A., 1055.
- Hargreaves, C. G. See Swanson, E. E.
- Hargreaves, F., ball hardness and cold-working of soft metals and eutectics, B., 411.
- Hargreaves, F., and Hills, R. J., work-softening of eutectic alloys, B., 755.
- Hariharan, K. V., Menon, K. N., and Simonsen, J. L., α -isopropyl-glutaconic acid, A., 395.
- Hariharan, K. V. See also Gibson, C. S.
- Harrington, C. R., synthesis of 3:4-dihydroxyphenylalanine, A., 638.
- Harker, G., and Newman, R. K., reactions depending on vapour at interface of two immiscible liquids, A., 250.
- Harkins, W. D., and Broeker, C. E., separation of the isotopes of chlorine, A., 1301.
- Harkins, W. D., and Kay, W. B., attempt to add an electron to the nucleus of an atom, A., 809.
- Harkins, W. D., and Mortimer, B., separation of isotopes and a further separation of mercury by evaporative diffusion, A., 1301.
- Harkins, W. D., and Shadduck, H. A., atomic synthesis occurring during atomic scattering and the theory of the building up of atoms from hydrogen and helium, A., 1070*.
- synthesis and disintegration of atoms as shown by an application of the Wilson cloud-track method, A., 1302.
- Harkort, H., apparatus for determining the degree of fineness of pulverulent or fine granular masses by means of suspension, (P.), B., 506.
- Harlan, W. R., and Hixon, R. M., volatility of nicotine, A., 944.
- Harley, C. P., and Fisher, D. F., occurrence of acetaldehyde in Bartlett pears and its relation to pear scald and breakdown, B., 242.
- Harlow, W. M., and Wise, L. E., wood. I. Analysis of wood rays in two hard-woods, B., 636.
- Harman, H. W., Oliver, J. H., and Woodhouse, P., finings, B., 424.
- Harman, R. W., aqueous solutions of sodium silicates. VIII. General summary and theory of constitution; sodium silicates as colloidal electrolytes, A., 234.
- Harned, G. T., and Phosphate Mining Co., treatment of phosphate rock, (P.), B., 584.
- Harned, H. S., and Åkerlöf, G., salt action in homogeneous catalysis, A., 1336.
- Harned, H. S., and Harris, J. McA., jun., activity coefficients of sodium and potassium hydroxides in their corresponding chloride solutions at high constant total molality, A., 1327.
- Harned, H. S., and Hawkins, J. E., catalysis of ethyl formate [hydrolysis] by monochloroacetic acid and of ethyl acetate [hydrolysis] by dichloroacetic acid in neutral salt solutions, A., 251.
- Harnes, A. R., colorimetric determination of lipid phosphorus in blood, A., 786.
- Harnisch, C. See Sabalitschka, T.
- Harnsberger, A. E., and Pure Oil Co., distillation of oils, (P.), B., 396.
- Harnwell, G. P., positive ion kinetics, A., 568.
- angular scattering of electrons in hydrogen and helium, A., 1169.
- inelastic collisions in ionised gas mixtures, A., 1299.
- Harper, H. J., and Murphy, H. F., growth of cotton in various nutrient solutions, B., 907.
- Harpuder, K., biological action of the water of the Wiesbaden hot springs. III. Biological importance of heavy metals as catalysts, A., 550.
- biological action of the water of the Wiesbaden hot springs. IV. Effect of ferrous and manganous ions on enzymes, A., 550.
- Harrap, E. R., Cann, J. A., and Bell's United Asbestos Co., Ltd., [production of] cementitious material, (P.), B., 896.
- Harrel, C. G., value of hydrogen-ion concentration and buffer value determination in testing and use of flours, B., 104.
- Harrington, E. A., registering photodensitometer, A., 609.
- Harrington, E. L., experimental evidence of the existence of aggregates of active deposit atoms in gases containing radon, A., 1301.
- Harrington, M. T., cottonseed, B., 375.
- Harris, C., partial drying of town gas, B., 76.
- Harris, H., separating impurities from impure lead or lead alloys, (P.), B., 821.
- Harris, G. D. See Industrial Dryer Corporation.
- Harris, H., treatment of impure [silver, lead, or tin] metals or alloys [for the removal of copper], (P.), B., 412.
- separation of ingredients from an alkaline mixture containing oxy salt of arsenic and/or oxy salt of tin, (P.), B., 604*.
- Harris, J., mechanical ore-roasting furnace, (P.), B., 372.
- Harris, J. A., possible relationship between soil salinity and stand in cotton, B., 938.
- Harris, J. A. See also Treloar, A. E.
- Harris, J. E. G., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing [soluble leuco-esters of vat dyes], (P.), B., 442.
- Harris, J. E. G. See also Beckett, E. G., and Wylam, B.

- Harris, *J. McA., jun.* See Harned, *H. S.*
- Harris, *L.*, photochemical union of hydrogen and chlorine, A., 378.
absorption spectrum of nitrogen dioxide, A., 1305.
- Harris, *P. M.*, Mack, *E., jun.*, and Blake, *F. C.*, atomic arrangement in orthorhombic iodine, A., 822.
- Harris, *S.* See Brady, *O. L.*
- Harris, *S. A.* See Corson, *B. B.*
- Harris, *W. J., jun.*, and Surface Combustion Co., Inc., firing arrangement for muffle furnaces, (P.), B., 551.
- Harrison, *A. P.*, and Fleischmann Co., manufacture of yeast, (P.), B., 687*.
- Harrison, *C. W.* See Hunter, *A. C.*
- Harrison, *D. C.*, simple form of automatic siphon, A., 40.
autocatalytic oxidation of sulphhydryl compounds, A., 44.
- Harrison, *D. C.*, and Quastel, *J. H.*, reduction potential of cysteine, A., 959.
- Harrison, *E. P.*, temperature variation of the elasticity of Rochelle salt, A., 7.
- Harrison, *G. A.*, and Bromfield, *R. J.*, cause of Andrewes' diazo-test for renal inefficiency, A., 322.
- Harrison, *G. E.*, variations in the fine structure of H_{α} , A., 1165.
- Harrison, *L. S.* See Kendal, *J.*
- Harrison, *R. W.* See Edwards, *P. W.*
- Harrison, *T. R.* See Abeloos, *M.*
- Harrison, *W.*, manufacture of carbohydrate derivatives, (P.), B., 330.
manufacture of wool-like cellulose material, (P.), B., 744*.
production of carbohydrate compounds, (P.), B., 744*.
- Harrison, *W. N.*, vitreous enamel slips and their control, B., 262.
- Harrison, *W. N.*, and Hartshorn, *T. O.*, ceramic colours and their use in vitreous enamels, B., 238.
- Harrop, *G. A., jun.* See Barron, *E. S. G.*
- Harshaw, *W. J.*, Parke, *C. S.*, and Harshaw, Fuller, & Goodwin Co., manufacture of hydrofluoric acid, (P.), B., 403.
- Harshaw, Fuller, & Goodwin Co. See Harshaw, *W. J.*
- Hart, *A. C.*, dipping refractometer for determining the concentration of dilute glue liquors, B., 722.
- Hart, *A. M.*, manufacture of fuel briquettes, (P.), B., 79.
- Hart, *A. M.*, and Hart Carbon Fuel Co., Ltd., manufacture of fuel briquettes, (P.), B., 439*.
- Hart, *C. V.*, carbonic acid azides, A., 993.
- Hart, *D.* See Kiehl, *S. J.*
- Hart, *E.*, maple sap and its improvement, B., 584.
- Hart, *E. B.*, Steenbock, *H.*, Waddell, *J.*, and Elvehjem, *C. A.*, iron in nutrition. V. Availability of rat for studies in anaemia. VI. Iron salts and iron-containing ash extracts in correction of anaemia. VII. Copper as supplement to iron for haemoglobin formation in the rat, A., 790.
- Hart, *E. B.* See also Titus, *R. W.*
- Hart, *M. C.*, Tourtelotte, *D.*, and Heyl, *F. W.*, effect of irradiation and cod-liver oil on calcium balance in the human adult, A., 333.
- Hart, *M. C.* See also Heyl, *F. W.*
- Hart, *M. O.* See Everett, *M. R.*
- Hart, *P. C.* See Laqueur, *E.*
- Hart, *R. A.*, calcium-sodium ratio of certain [river] waters, B., 588.
- "Hart" Accumulator Co., Ltd., and Schofield, *W.*, [sheaths for] electrodes of secondary batteries, (P.), B., 529.
- Hart Carbon Fuel Co., Ltd. See Hart, *A. M.*
- Harteck, *P.* See Clusius, *K.*
- Hartel, *H. von.* See Ebert, *L.*
- Harteneck, *A.*, and Schuler, *W.*, action of pepsin and trypsin-kinase on insulin, A., 676.
- Harter, *H.*, apparatus for carrying-out exothermic catalytic gas reactions, (P.), B., 391.
carrying-out exothermic gas reactions, (P.), B., 553.
apparatus for carrying-out chemical reactions between gases or vapours, or gases and vapours, (P.), B., 697, 880*.
- Hartford Battery Manufacturing Co. See Barhoff, *F. W.*
- Hartford-Empire Co., temperature control in furnaces or lehrs, (P.), B., 712.
- Hartford-Empire Co., and Willetts, *P. G.*, glass furnace, (P.), B., 368, 642.
refractory body and method of making same, (P.), B., 817.
- Hartford-Empire Co. See also Willetts, *P. G.*
- Hartlapp, *A. P.* See Wichman, *F. M.*
- Hartley, *E. G. J.*, action of cuprous cyanide on methyl iodide, A., 615.
- Hartley, (Sir) *H.* See Woolcock, *J. W.*
- Hartley, *J. W.*, apparatus for separating materials of different density, (P.), B., 658.
- Hartley, *K. T.*, slaking of dry soils with water, B., 311.
- Hartman, *C., jun.*, and Powers, *W. L.*, crop-producing power of limited quantities of "essential" plant nutrient, B., 534.
- Hartman, *W. H.*, and Bonnot Co., rotary pulveriser, (P.), B., 2.
- Hartmann, *A.* See Elsaesser, *E.*
- Hartmann, *B. G.*, and Hillig, *F.*, determination of citric acid in fruits and fruit products, B., 544.
- Hartmann, *E.*, and Grasselli Dyestuff Corporation, [manufacture of colour] lakes, (P.), B., 132*.
- Hartmann, *E.* See also I. G. Farbenind. A.-G.
- Hartmann, *M.*, and Kägi, *H.*, acid soaps, B., 199.
- Hartmann, *M.* See also Society of Chemical Industry in Basle.
- Hartmann, *M. L.* See Carborundum Co., Ltd.
- Hartmann, *P.*, and Schenzer, *K.*, preparation of washable aniline dyes, (P.), B., 475.
- Hartmann, *W.*, determination of milk in caramel, etc., B., 687.
determination of phosphoric acid in foods:uff., B., 942.
- Hartong, *B. D.*, magnitude of observation errors in chemical analysis, A., 382.
- Hartree, *D. R.*, wave-mechanics of an atom with a non-Coulomb central field. I. Theory and methods. II. Results and discussion, A., 216.
wave-mechanics of an atom with a non-Coulomb central field. III. Term values and intensities in series in optical spectra, A., 933.
- Hartree, *D. R.* See also James, *R. W.*
- Hartridge, *H.*, and Roughton, *F. J. W.*, photographic methods of estimating the percentage saturation of haemoglobin with various gases. I. Ratio of oxyhaemoglobin to carboxyhaemoglobin, A., 537.
- Hartshorn, *T. O.* See Harrison, *W. N.*
- Hartstoff-Metall Akt.-Ges. (Hametag), and Podszus, *E.*, preparation of carbon black, (P.), B., 290.
- Hartstoff-Metall Akt.-Ges. (Hametag). See also Kramer, *E.*, and Podszus, *E.*
- Hartung, *K.* See Brigl, *P.*
- Hartung, *L. H.*, and Folbert, *F.*, manufacture of moulded products, (P.), B., 568.
- Hartwell, *B. L.*, and Damon, *S. C.*, relative lime needs of ammonium sulphate and sodium nitrate, and of different crops, B., 496.
- Hartwell, *G. A.*, protein and vitamin-B, A., 1288.
- Hartwig, *W.*, crystal structure of berzelianite, A., 109.
- Hartzell, *A.*, and Wilcoxon, *F.*, analyses of sprayed apples for lead and arsenic, B., 622.
- Harukawa, *C.*, toxicity of lime-sulphur [insecticidal] mixture, B., 110.
- Harvel Corporation, and Harvey, *M. T.*, treatment of cashew nut-shell oil and products [colours] obtained thereby, (P.), B., 888, 902.
- Harvey, *A. R.*, concentrating tables, (P.), B., 574.
- Harvey, *D.*, effects of cod-liver oil on the calcium and phosphorus metabolism of the lactating animal, A., 91.
- Harvey, *E. H.*, essential oils as anti-ferments, B., 799.
- Harvey, *E. H.*, and Schuette, *H. A.*, action of selenium monochloride on fatty oils, B., 935.
- Harvey, *E. N.*, oxygen consumption of luminous bacteria, A., 798.
bioluminescence, A., 814.
oxidation of luciferin without luciferase; mechanism of bioluminescence, A., 1051.
- Harvey, *H. W.*, nitrate in the sea. II., A., 389.
- Harvey, *M. T.*, reaction products of cashew nut-shell oil, (P.), B., 237, 376.
manufacture of products [artificial rubber] from cashew nut-shell oil, (P.), B., 420.
- Harvey, *M. T.* See also Harvel Corporation.
- Harwood, *H. F.* See Brammall, *A.*, Holmes, *A.*, and Holt, *E. V.*
- Hasbrouck, *L. P.* See Eclipse Textile Devices, Ltd.
- Hasegawa, *S.*, effect of β -indoethylamine on blood-sugar, A., 443.
- Hasenfratz, *V.*, and Sutra, *R.*, properties of benzylidenecharrmine, A., 78.
principles of two types of *Combretum* seeds, A., 1062.
- Hasenöhrl, *R.* See Depisch, *F.*
- Hashi, *K.*, soya-bean oil. I. Component fatty acids. II. Isolation of dipalmitolein, A., 736.
- soya-bean oil. IV. Separation of its glycerides by bromination, B., 578.

- Hashimoto, N. See Suzuki, V.
 Hashitani, Y., yeast gum, B., 499.
 Haskins, H. D. See Holbrook, W. P.
 Haslacher, A. B., preservation of vegetable produce, (P.), B., 545.
 Haslam, G. S., action of coal on a photographic plate in the dark, B., 549.
 Haslam, R. T., and Smith, V. C., flow of heat through limestone and lime, B., 232.
 Hassan, A., dextrose in normal urine, A., 1273.
 Hasse, P., determination of carbon dioxide [in air], B., 892.
 Hasse, P., and Kirchmeyer, F., significance of soil respiration in the carbon dioxide-feeding of plants, B., 343.
 Hasse, P. See also Lemmermann, O.
 Hassel, O., existence of an isomorphism, forbidden by the strict structure theory, of crystals of hexammine, aquopentammine, and diaquotetrammine complexes of high elements of symmetry, A., 1178.
 Hassel, O., and Naess, G. B., aquo-hexammine and -pentammine complexes of trivalent cobalt and chromium which crystallise in the cubic system, A., 974.
 Hasselbach, A., and Polysius, G., manufacture of cements rich in alumina, (P.), B., 672.
 Hasselbring, H., carbohydrate transformations in carrots during storage, A., 1289.
 Hasselström, T., decomposition of the ozonides of semicyclic unsaturated systems; ozonisation of sabinol, A., 182.
 Hastie, S. H., and Dick, W. D., character in pot-still whisky. II., B., 797.
 Hastings, A. B., Sendroy, J., jun., and Van Slyke, D. D., gas and electrolyte equilibria in blood. XII. Value of pK' in the Henderson-Hasselbalch equation for blood-serum, A., 1268.
 Hastings, A. B., and Walker, T. K., preservative principles of hops. VIII. Modification of the gravimetric method for the evaluation of hops, B., 170.
 Hastings, J. J. H., and Walker, T. K., preservative principles of hops. IX. Influence of special methods of drying at low temperatures on the antiseptic properties of hops, B., 941.
 Hata, K. See Veda, Y.
 Hatakeyama, T., protein metabolism and phosphorus content in experimental hæmolytic and stasis icterus, A., 791.
 Hatch, F. E., electric furnace for treating ores, shales, etc., (P.), B., 415.
 Hatcher, R. A., toxicity of an impurity in official cinchophen [2-phenylquinoline-4-carboxylic acid], A., 1024.
 Hatcher, W. H., and Holden, G. W., hydrogen peroxide as an oxidising agent in acid solution. VIII., A., 256.
 Hatcher, W. H., and West, C. R., comparative studies in oxidation. II., A., 249.
 Hatfield, A. E., and Achille Serre, Ltd., cleaning processes, (P.), B., 637.
 Hatfield, A. E., and Alliot, E. A., improvements in dry-cleaning and laundry processes, B., 566.
 Hatfield, A. E., Alliot, E. A., and Achille Serre, Ltd., manufacture of soap, (P.), B., 492.
 Hatfield, W. D., partial aëration of strong sewage with activated sludge, B., 693.
 Hatfield, W. D., Symons, G. E., and Mills, R. R., gases from sewage sludge digestion, B., 246.
 Hatfield, W. H., heat-resisting steels. II. Mechanical properties, B., 408.
 Hatschek, E., herapathite suspension, A., 948.
 Hatswell, F. T., purification of benzol for motor fuel, B., 148.
 Hattori, S., spectrographs of compounds of the flavone series. I. Derivatives of flavone, flavonol, and styrylchromonol. II. Synthesis of two new flavone glucosides; spectrographical influence of sugar combination and acylation, A., 1020.
 Hauck, F. See Encken, A.
 Haudiquet. See Goiffon, R.
 Haueisen. See Thompson, M. de K.
 Haufe, A. See Kionka, H.
 Haufe, W., and Schwarze, H. von, cyanogen and its compounds in the blast furnace, B., 266.
 Hauge, S. M., nutritive value of alba blood as a source of protein, B., 767.
 Haugen, C. O., and Talbert, G. A., amino-acids in sweat, A., 914.
 Haughey, R. E., refining of elaterite, (P.), B., 150.
 Hauman, E. L., crucible, (P.), B., 590.
 Hauman, E. L., and Electro-Refractories Corporation, production of a carbon-bonded refractory, (P.), B., 193.
 Haun, F., effect of working of cows on the composition of the milk, B., 384.
 Hauptmeyer, F., and Krupp A.-G., F., casting articles of corrosion-proof steel, (P.), B., 821*.
 Haurowitz, F., blood pigments. VIII., A., 662.
 Haurowitz, F., and Sládek, J., preparation and properties of erythrocytostromata, A., 661.
 Haurowitz, F., composition of blood platelets, A., 662.
 Hausdörfer, E. See Diltney, W.
 Hauser, C. R. See Coleman, G. H.
 Hauser, E. A., colloid chemistry of rubber latices. III. Individual shape of the rubber particles and their heritability, B., 100.
 Hauser, E. A., and Rosbaud, P., stretching of rubber, B., 309.
 Hauser, E. A., and Scholz, P., colloid chemistry of rubber latices. II. Surface tension measurements with latex of *Hevea brasiliensis*, B., 61.
 Hauser, H., 2-(aminophenyl)benzthiazoles, A., 309.
 Hauser, M., production of shaped metal-containing ceramic and like articles, (P.), B., 606.
 Hauser, M., preparing electrical resistances from ceramic material, (P.), B., 677.
 Hauser, M., production of ceramic articles, (P.), B., 712.
 Hauser, M., production of metal-containing electric resistances, (P.), B., 717.
 Haushalter, F. H., Jones, W. N., and Schade, J. W., effects of ozone on stretched rubber, B., 309.
 Haussmann, A. C., Zeeman effect and spectral terms in the arc spectrum of platinum, A., 679.
 Havard, R. E., and Hoyle, J. C., vitamin-D in adults; its effect on the calcium and inorganic phosphate of the blood, A., 801.
 Havelock, T. H., dispersion of methane, A., 6.
 Havestadt, L., [crystal] structure of beryllium oxalate trihydrate, A., 821.
 Havestadt, L. See also Fricke, R.
 Havighurst, R. J., scattering of X-rays and electron distribution in the atoms of crystals, A., 224.
 Hawadiri, J. A. M. See Société Française des Lampes à Incandescence "Luxor."
 Hawes, E. R. See Stadie, W. C.
 Hawk, C. O. See Smith, D. F.
 Hawkins, F. S., and Partington, J. R., effect of one salt on the solubility of another in ethyl alcohol solution. III., A., 1182.
 Hawkins, J. A. See Van Slyke, D. D.
 Hawkins, J. E. See Harned, H. S.
 Hawkins, R. S., variation of water and dry matter in the leaves of Pima and Acala cotton, A., 1407.
 Hawkinson, A. T. See Rieman, W.
 Hawley, C. G., and Centrifux Corporation, gas-cleaning apparatus, (P.), B., 353.
 Hawley, C. G., hot filtration, (P.), B., 553.
 Hawley, C. G. See also Schutz, J. M.
 Hawley, L. F., Fleck, L. C., and Richards, C. A., effect of decay on the chemical composition of wood, B., 485.
 Haworth, J., apparatus for generation of acetylene gas, (P.), B., 595.
 Haworth, J., apparatus for generation of acetylene gas under low or high pressure, (P.), B., 595.
 Haworth, R. D. See Gulland, J. M.
 Haworth, W. N., structure of carbohydrates, A., 620.
 Haworth, W. N., and Hirst, E. L., ring structure and optical relationships in the mannose-rhamnose-lyxose series of sugars; isolation of a new form of lyxose, A., 740.
 Haworth, W. N., Hirst, E. L., and Webb, J. I., polysaccharides. II. Acetylation and methylation of starch, A., 1360.
 Haworth, W. N., and Learner, A., polysaccharides. I. Structure of inulin, A., 510.

- Haworth, W. N., Loach, J. V., and Long, C. W., constitution of the disaccharides. XVII. Maltose and melibiose, A., 156.
- Haworth, W. N., Long, C. W., and Plant, J. H. G., constitution of the disaccharides. XVI. Cellobiose, A., 47.
- Haworth, W. N., and Nelson, Ltd., J., concentrating aqueous solutions of acetic or formic acid, (P.), B., 117.
- Haworth, W. N., and Porter, C. R., derivatives of γ -xylose; xylose-monoacetone and its conversion into 2:3:5-trimethyl- γ -xylonolactone, 509.
- Haworth, W. N. See also Drew, H. D. K., and Goodyear, E. H.
- Hay, J. T., corrosion-resistant ferrous alloy, (P.), B., 527.
- Hay, R., function of oxygen in the dissolution of metals and minerals by cyanide solutions, B., 930.
- Hay, R., and Higgins, R., tempering changes in carbon steels, B., 233.
- Hay, S., and Edwards, A., horizontal settings, with special reference to silica retorts, B., 76.
- Hay, W. See Rule, H. G.
- Hayashi, H., cetacea. XXIX. Alkali and alkaline-earth content of different horny tissues: keratinisation, A., 84.
- Hayashi, K., cetacea. XXVI. Relationship between different kinds of whales, A., 84.
- cetacea. XXXV., A., 85.
- Hayashi, K. See also Matsui, M.
- Hayashi, N., colloid-chemical significance of electrolytes for precipitation, A., 1046.
- Hayashi, S., decomposition of sugar in the human placenta and the effect of hormones thereon, A., 918.
- Hayashi, T. See Kondo, K.
- Hayes, C. See Klein, P.
- Hayes, F. B., and Western Gas Construction Co., manufacture of carburetted water-gas, (P.), B., 437.
- Haynes, D., and Brown, J. W., determination of the salt content from the p_H value of apple juice; mineral content of the juice and whole apple, A., 1060.
- Haynes, J. D., studies with sulphur for improving alkali soil, B., 618.
- rate of availability of various forms of sulphur fertilisers, B., 618.
- Haynes, P. E., manufacture of carbon dioxide, (P.), B., 523.
- Haynes, P. E., and Linde Air Products Co., production of helium from natural gas, (P.), B., 403.
- Haynes, R., fast-green, a substitute for light-green S. F. yellowish, A., 448.
- thiazine dyes as biological stains. II. Influence of buffered solutions on staining properties, A., 1393.
- Haynes Sellite Co. See Franks, R.
- Hays, I. M. See Salmon, W. D.
- Hayward, E., effecting reactions between solid materials and air or gas, (P.), B., 658.
- [continuous] production of red lead, (P.), B., 814.
- Haywood, F. W. See Bramley, A.
- Hazard, R., action of picric acid on tropine silicotungstate, B., 387.
- Hazard, R., and Lévy, J., cardiovascular action of tropinonesemi-carbazone and tropinone and ψ -pelletierine oximes, A., 1480.
- Hazeldon, J. N., K.S.G. low-temperature process, B., 393.
- Hazeley, E. See Courtaulds, Ltd.
- Hazelnhrst, H. E. See Suffern, E. S.
- Hazen, R. K. See Corson, B. B.
- Heacock, E. See Leonard, G. F.
- Head, R., Anciens Établissements A. Savy Jeanjean & Cie. Société Anonyme, and Baker Perkins, Ltd., manufacture of chocolate goods, etc., (P.), B., 943.
- Head, R., Clay, C., Baker Perkins, Ltd., and Anciens Établissements A. Savy Jeanjean & Cie. Société Anonyme, [continuous] method and apparatus for preparing cream fondant, (P.), B., 623.
- Head, R. E., lime scale as a concentrate, B., 397.
- Headden, W. P., effects of nitrates on the composition of the potato, B., 764.
- Healey, A. See Dunlop Rubber Co., Ltd.
- Healy, D. J. See McHargue, J. S.
- Heaps, C. W., longitudinal thermomagnetic potential difference in a bismuth crystal, A., 576.
- Heat Treating Co. See Doherty, H. L., Fisher, J. P., and Laird, W. G.
- Heath, A. C., jun. See Dix, E. H., jun.
- Heberlein, G., and Heberlein Patent Corporation, production of figured fabrics, (P.), B., 402*.
- Heberlein & Co. Akt.-Ges., treatment of fabrics, (P.), B., 260, 332.
- improvement of artificial fibres consisting of regenerated cellulose, (P.), B., 295.
- production of pattern effects on textile goods, (P.), B., 332.
- Heberlein Patent Corporation. See Bodmer, A., and Heberlein, G.
- Hebler, F., delaying the ignition of hydrogen phosphide resulting from the action of water on calcium phosphide or other phosphide, (P.), B., 14.
- standardisation of turpentine, "terpenoids," and turpentine substitutes, and a method of estimating their technical qualities, B., 202.
- evaluation of case-hardening materials [for iron], B., 860.
- efficiency and economics of so-called "colloid mills," B., 877.
- Hechenbleikner, I., and Chemical Construction Co., manufacture of phosphoric acid, (P.), B., 446.
- Hechmer, C. A. See Morse, R. B.
- Hecht, F., precise determination of thorium by precipitation as subphosphate, A., 1206.
- Hecht, F., and Körner, E., thorium content of Katanga pitchblende, B., 709.
- Hecht, M. See Rodman, C. J.
- Heck, L. L. See Gilman, H.
- Heckele, F., salts of mesotartaric acid, A., 395.
- inactive tartaric acids in the tartaric acid industry, B., 542.
- Heckert, L. C. See Gilman, H.
- Heckzo, T., potentiometric determination of iron with permanganate by a new method, A., 726.
- potentiometric analysis. II. Determination of silver and the halogens, A., 980.
- use of Emich filter-tubes for potentiometric analysis, A., 1345.
- Hedestrand, G., dielectric constants of aqueous amino-acid solutions, A., 834.
- Hedges, E. S., effects of uneven distribution of current density over an electrode, A., 23.
- passivity of metals, A., 600.
- Hedges, E. S., and Henley, (Miss) R. V., formation of Liesegang rings as a periodic coagulation phenomenon, A., 1323.
- Hedges, J. J., moisture relations of colloidal fibres, B., 46.
- humidity and the fading of dyestuffs on wool, B., 260.
- Hedges, J. J. See also Aphorpe, W. H.
- Hedley, T. J. See Morgan, G. T.
- Hedström, E. G., root-filling substance, (P.), B., 796.
- Hedvall, J. A., connexion between reactivity and electrical conductivity in the solid state, A., 485.
- Hedvall, J. A., and Gustafsson, E., determination of reaction temperatures in mixtures of powders by means of heating curves, A., 486.
- Heederik, P. E., destruction of organic matter in toxicological examinations, A., 1105.
- Heermann, P., impregnation of fibres and fibrous materials, (P.), B., 227.
- Hees, H., and Tropp, C., fermentation of substituted carbohydrates by bacteria of the *B. coli* and *B. lactis aerogenes* groups, A., 797.
- Heesterman, J. E. See Waegeningh, J. E. H. van.
- Heffernan, P., and Green, A. T., method of action of silica dust in the lungs, B., 876.
- Hefti. See Duparc, L.
- Hefti, F. See Schnorf, C.
- Heftler, V. R., filters, strainers, etc., (P.), B., 431.
- Hegan, C. P. See Reed Air Filter Co.
- Hegan, H. J. See Courtaulds, Ltd.
- Hegedüs, M., acidimetric determination of phosphate, A., 1346.
- Hegel, G. W. See British Thomson-Houston Co., Ltd.
- Heiber, W., and Sonnekalb, F., reactions and derivatives of iron carbonyl, A., 511.
- Heichert, H. S. See Pittsburgh Plate Glass Co.
- Heid, J. L., determination of field corn in canned mixtures of field and sweet corn, B., 283.
- Heidbrink, W. See Ley, H.
- Heide, F., hydrothermal paragenesis of quartz and arsenic minerals in altered quartz porphyry from Saubach i. V.; properties of pharmakosiderite and symplectite, A., 1349.
- Heide, L. van der, lime-free sugar solutions, B., 652.
- Heide, R. von der, transforming pieces of curds into cheese by treatment with salts, (P.), B., 767.
- Heidelberger, M. See Jacobs, W. A.
- Heidenhain, H., Gutzeit method for the determination of arsenic, A., 384.
- Heidberg, F., preparation of a protective colloid, (P.), B., 310.

- Heidberg, *T. von*, nephelometric determination of chlorine and silver, A., 336.
- Heiduschka, A., and Bienert, B., cacao-red. I. and II., A., 1016; B., 118.
- Heiduschka, A., and Handritschk, C., [normal and pathological] human fat, A., 1152.
- Heiduschka, A., and Muth, F., nicotine in tobacco. II., B., 501.
- Heiduschka, A., and Pyriki, C., citric acid content of grape must and wine, B., 312.
- Heiduschka, A., and Schuster, H., glycerides of aliphatic acids, A., 1354.
- Heijkenskjöld, G. O. W., and Aktiebolaget Båsta, preparation of yeast, (P.), B., 766*.
- Heike, H., and Westerholt, F., recrystallisation of steel, cast but not further treated, after heat treatment, A., 1181.
- Heil, A., galvanic cell, (P.), B., 272.
- Heil, H. See Heyl, G.
- Heilbron, I. M., Holt, S. L., and Kitchen, F. N., intermolecular condensation of acetylmethylantranilic acid by means of phosphorus pentachloride and formation of a complex isocyanine dye, A., 650.
- Heilbron, I. M., and Irving, F., intermolecular condensation of styryl ketones. II. Styryl nonyl ketone and the formation of dimerides, A., 1247.
- Heilbron, I. M., Kamm, E. D., and Morton, R. A., absorption spectra of oils and oil constituents with special reference to pro-vitamin-D, A., 92.
- Heilbron, I. M., Morton, R. A., and Sexton, W. A., sterol group. I. Absorption spectra of cholesterol derivatives, A., 219. cholesterol and vitamin-D, A., 459.
- Heilbron, I. M., and Owens, W. M., unsaponifiable matter from the oils of elasmobranch fish. IV. Establishment of the structure of selachyl and batyl alcohols as monoglycerol ethers, A., 616.
- Heilbron, I. M., and Sexton, W. A., sterol group. II. Formation of ψ -cholestene and cholestenone in the dry distillation of cholesterol, A., 410.
- Heilbron, I. M. See also Dickinson, R., and Morton, R. A.
- Heiligenstaedt, W., Siemens-Martin open-hearth furnace with mixed-gas heating, B., 896.
- Heiligman, H. A. See Seil, G. E.
- Heilingötter, R., determination of paraffins in commercial benzole and motor petrols, B., 512.
- Heilmann, R. See Locquin, R.
- Heimann, H., manufacture of tasteless alkaloid preparations, (P.), B., 316.
- Heimann, H. See also Franck, H.
- Heimerdinger, H. M. See Jones, L. E.
- Heimke, P. See Auwers, K. von.
- Heimlich, E. L. A., separation of bark or bast from plant stalks, (P.), B., 478.
- Hein, F. [with Schwartzkopf, O., Hoyer, K., Klar, H., Eissner, W., and Clauss, W.], salt formation of chromium pentaphenyl hydroxide, CrPh₅OH, A., 656.
- Hein, F., Hoyer, K., and Klar, K., micro-determination of halogens and sulphur in organic substances, especially chromium compounds, A., 1389.
- Hein, F., and Pintus, F., reaction of complex chromium salts with magnesium phenyl bromide, A., 80.
- Hein, F., and Retter, W., preparation of 2:2'-dipyridyl, A., 1262.
- applicability of the analytical quartz lamp to mixtures of solid substances, B., 733.
- Hein, F., and Wagner, K., preparation of organo-mercury compounds, (P.), B., 244.
- Heindl, R. A., progress report on investigation of saggar clays. IV. Elasticity, transverse strength, and plastic flow at 1000°, B., 263.
- Heindl, R. A., and Pendergast, W. L., third progress report on investigation of saggar clays; their elasticity and transverse strength at several temperatures, B., 52.
- Heinecke, H. M. E. See Western Electric Co., Inc.
- Heinrich, F., and Petzold, E., testing a carbon monoxide gas-mask, B., 173.
- Heinrich, F. See also Weidenhagen, R.
- Heinrich, H., sodium salts, used in conjunction with potash, as a plant food. V. Peas, B., 343.
- Heinrich, K. See Schwarz, K.
- Heinrich, R. See Siemens-Schuckertwerke G.m.b.H.
- Heinrichs, H., determination of iron in red lead, B., 456.
- Heinsen, A. See Terres, E.
- Heintze, G., machine for washing wool and other textile materials, (P.), B., 296.
- Heinze, E. See I. G. Farbenind. A.-G.
- Heinze, R., cracking experiments by the Dubbs process with distillates from Hanoverian petroleum, B., 218.
- Heinzel, A. See Tammann, G.
- Heisenberg, W., theory of ferromagnetism, A., 1300.
- Heisig, G. B., anomalous effect of *o-p*-orienting groups on the m. p. of dihalogenated benzene derivatives, A., 282.
- simplified manometer for vacuum distillations, A., 609.
- volumetric determination of ferrous ion by means of potassium iodate, A., 861.
- Heisler, C. L. See British Thomson-Houston Co., Ltd.
- Heissler, H. E., and Atmospheric Nitrogen Corporation, catalyst for the production of hydrogen, (P.), B., 641.
- Heitler, W., group theory of homopolar chemical combination, A., 589.
- Heitler, W. See also Gibson, G. E.
- Heizmann, J., heat exchangers, (P.), B., 878.
- Hekma, E., coagulation of fibrin as a process of micellar crystallisation and agglutination, A., 1392.
- Helberger, H. See Fischer, Hans.
- Held, E. F. M. van der. See Ornstein, L. S.
- Held, N. A. See Vrevski, M. S.
- Held, R. See Brigl, P., and Eibner, A.
- Hele-Shaw, H. S., and Beale, A., separation of liquids, (P.), B., 916*.
- Helfenstein, A. See Karrer, P.
- Helferich, B., and Bredereck, H., sugar syntheses. VIII. Synthesis of vicianose, melibiose, and cellobiosidogenicibiose acetate, and a new tetra-acetylfructose, A., 1224.
- Helferich, B., and Collatz, H., halogenohydrins of gentiobiose and dextrose, A., 1221.
- Helferich, B., and Himmen, E., new unsaturated anhydroglucose, A., 1221.
- Helferich, B., and Sieber, H., synthesis of partly acylated glycerides. I. and II., A., 44, 134.
- Helfrecht, A. J. See Martin, T. S., and Staley, W. D.
- Heilbach, R. See Phillips, M.
- Heller, A. See Leuchs, H.
- Heller, G. [with Eisenschmidt, W., Reichardt, G., and Wild, H.], action of bromine on naphtholsulphonic acids; a remarkable colour reaction in solution, A., 409.
- Heller, G. [with Köhler, Willi, Gottfried, S., Arnold, H., and Herrmann, H.], transformation of quinazolones into triazole derivatives, A., 1381.
- Heller, G., Dietrich, W., and Reichardt, G., 2-methylquinoline oxide and *s-di-o*-aminobenzhydrazide, A., 302.
- Heller, G., and Hessel, L., 4-chloroanthranilic acid, A., 1373.
- Heller, V. G., nutritive properties of the mung bean, A., 87.
- effect of light on vitamin synthesis in plants, A., 556.
- Heller, V. G., Breedlove, C. H., and Likely, W., determination of coefficients of utilisation of foodstuffs, A., 1278.
- Heller & Co., B. See Alsberg, J.
- Hellerman, L., Cohn, M. L., and Hoen, R. E., thermal decomposition of nitrites; nitrites of triphenylethylamine and diphenylethylamine, A., 878.
- Hellmann, H., and Zahn, H., dielectric constants of solutions of electrolytes, A., 589, 1089.
- Hellmann, O., ovens for treating fuels or fuel-containing materials by heat, (P.), B., 290, 559.
- Hellmers, carbon compounds of the magma, A., 503.
- Hellwig, A. See Quam, G. N.
- Helmer, O. M. See Rose, W. C.
- Helmrich. See Felix, K. S.
- Heming, O. C. See Rose, W. C.
- Hemingway, R., melting of glass, B., 670.
- Hemmingsen, H. M. See Krogh, A.
- Hempel, low-temperature assay [of coal] in the Fischer aluminium retort, B., 249.
- Henderson, E., X-ray examination of saturated dicarboxylic acids and amides of the fatty acid series, A., 691.
- Henderson, F. Y. See Bolas, B. D.
- Henderson, H. See Pritchard, G. L.
- Henderson, J. See Rusden, H.
- Henderson, L. J. See Dill, D. B., and Talbot, J. H.
- Henderson, M., and Millet, J. A. P., p_H of normal saliva, A., 85.
- Henderson, M. C. See Watson, S. W.
- Henderson, S. T., pectin and hemicelluloses of the flax plant, A., 1119.

- Hendricks, R. See Lewis, H. F.
- Hendricks, S. B., molecular symmetry of acetylpyrrole, A., 648.
crystal structure of lithium iodide trihydrate, A., 694.
molecular symmetry of pentaerythritol, A., 821.
crystal structure of carbamide and the molecular symmetry of thiocarbamide, A., 1175.
- Hendricks, S. B., and Merwin, H. E., atomic arrangement in crystals of the alkali thiocyanoplatinates, A., 820.
- Hendricks, S. B. See also Wyckoff, R. W. G.
- Hendrickson, A. H. See Veihmeyer, F. J.
- Hendrie, G. A. See Pevere, E. F.
- Hendrix, B. M., resorption of copper and ferrocyanide ions by coagulated proteins, A., 1149.
- Hendrix, B. M., and Wilson, V., titration curves of coagulated and uncoagulated egg-albumin, A., 1323.
- Hendry, W. F., Yngve, V., and National Carbon Co., Inc., dry cell, (P.), B., 272.
- Hengstmann, H., decomposition of insoluble phosphates, (P.), B., 747.
- Hening, J. C. See Carpenter, D. C., and Dahlberg, A. C.
- Henke, C. O. See Brown, O. W.
- Henkel, E. See Czochralski, J.
- Henkel & Co., G.m.b.H., purification of the reagents used in preparing per-salts and other per-compounds, (P.), B., 157.
halogen-calcium-starch preparations, (P.), B., 240.
manufacture of a dry urease preparation, (P.), B., 500.
detergent compositions, (P.), B., 647.
reducing deterioration of colours of textile fabrics during washing, (P.), B., 783.
washing of textile fabrics, (P.), B., 809.
- Henley, A. T., critical analysis of malt, B., 424.
- Henley, R. R., Dorset, M., and Moskey, H. E., precipitation of the lethal principle of tuberculin by ammonium sulphate, A., 924.
- Henley, (Miss) R. V. See Hedges, E. S.
- Hennebute, H., and Goutal, E., apparatus for effecting chemical reactions, (P.), B., 75.
carbonising apparatus, (P.), B., 777.
- Hennebute, H. See also Goutal, E.
- Hennecke, E. See Windisch, W.
- Hennig, H. See Weygand, C.
- Henning, F., temperature measurement between 20° and 90° Abs., A., 1110.
- Henning, F., and Otto, J., "alteration of the legal temperature scale;" the international temperature scale (Paris 1927), and the Physikalisch-Technische Reichanstalt (1924) scale, A., 1315.
- Henning, F., and Tingwaldt, C., temperature of the acetylene-oxygen flame, A., 826.
- Henning, N. See Lange, H.
- Henningsen, C. See Du Pont Rayon Co.
- Henny, V., Seguy, J. D., and Universal Oil Products Co., apparatus for ascertaining the characteristics of flowing liquids, (P.), B., 915.
- Henri, V., and Schou, S. A., absorption spectra of formaldehyde and carbon monoxide: close relationship between these two molecules, A., 570.
ultra-violet spectrograms of carbohydrates, A., 620.
structure and activation of the formaldehyde molecule: analysis from the point of view of the ultra-violet absorption spectrum of the vapour, A., 935.
- Henri, V. See also Urbain, E.
- Henrich, F., and Herold, W., dyes resembling orcein, A., 632.
- Henriques, O. M., combination of carbon dioxide in blood. I. Velocity of dehydration and hydration of carbonic acid components of blood. II. Detection of quickly reacting, fixed carbon dioxide in haemoglobin. III. Detection of a haemoglobin-carbon dioxide complex in solutions of carbon dioxide and haemoglobin. IV. Carbon dioxide combining power of reduced and oxy-haemoglobin. V. Physiology of carbhaemoglobin, A., 1389.
- Henriques, V. See Carlström, A. B.
- Henry, C. See Société Française de Catalyse Généralisée.
- Henry, T. A., and Paget, H., action of Beckmann's chromic acid mixture on monocyclic terpenes, A., 295.
- Henry, T. A., and Sharp, T. M., alkaloids of some Indian aconites (A. *Balfourii*, A. *deinorrhizum*, and "chumbi aconite"), A., 781.
- Henry, T. A. See also Bell, F., and Wellcome Foundation, Ltd.
- Hense, R., treatment of hydrocarbon oils for use in internal-combustion engines, (P.), B., 7.
- Henshaw, D. M., Cooper, C., and Holmes & Co., Ltd., W. C., drying of fuel gases, (P.), B., 396.
- Henshaw, D. M. See also Cooper, C., and Holmes & Co., Ltd., W. C.
- Hensinger, W. See Oberhauser, F.
- Hentrich, W., Hardtmann, M., and Grasselli Dyestuff Corporation, manufacture of sulphuric acid esters of aromatic hydroxyalkyl ethers, (P.), B., 225*.
- Hentrich, W. See also I. G. Farbenind. A.-G.
- Hentschel, H., and Rinne, F., new type of crystal fine structure; crystal structure of hexaminecobaltic iodide, A., 694.
- Hentschel, H., and Zöller, E., metabolic changes in rickets, A., 441.
- Hentschel, H. See also Müller, Erich.
- Henville, D., continuous extractor, A., 986.
detection of isopropyl alcohol [in wine], B., 726.
- Henze, M., condensation of α -cyanocinnamic acid and potassium cyanide, A., 755.
- Hepburn, A. B., carbon monoxide band excitation potentials, A., 1308.
- Hepburn, H. C., electroendosmosis of aqueous solutions through glass diaphragms, A., 137.
- Hepburn, J. R. I., chemical nature of precipitated basic cupric carbonate, A., 31.
vapour pressure of water over sulphuric acid-water mixtures at 25°, and its measurement by an improved dew-point apparatus, A., 1190.
- Hepburn, R. H., apparatus for promoting the combustion of fuel, (P.), B., 561.
- Hepburn, W. McM., and Surface Combustion Co., semi-muffle forge furnace, (P.), B., 574.
continuous carbonising furnace, (P.), B., 662.
- Hepper, J., and Wagner, O., insulin and fat metabolism, A., 554.
- Hepp, K. See Amberger, K.
- Hepworth Co., S. S. See Olcott, C. A.
- Heraeus G.m.b.H., W. C., apparatus for measuring and recording variations in temperature, (P.), B., 733.
- Heraeus G.m.b.H., W. C. See also Haagn, E.
- Heraeus Vacuumschmelze Aktien-Gesellschaft, and Rohn, W., alloys for turbine blades and machine parts exposed to similar conditions, (P.), B., 337.
- Herashenko, P., electro-reduction of uranyl salts by means of the mercury dropping cathode, A., 372, 597*.
maxima on current-voltage curves. II. Maxima on the polarisation curves of uranyl salt solutions, A., 372, 596*.
hydrogen overvoltage and the reduction of oxalic acid at mercury cathodes, A., 482.
- Herashenko, P. [with Tyvonuk, Z.], reduction potentials of maleic and fumaric acids by the dropping mercury electrode, A., 482.
- Herbert, D. H., ore separator, (P.), B., 21.
- Herbert, F. K., pancreatic fat necrosis, A., 1395.
- Herbert, Ltd., A. See Blyth, C. E.
- Herbig, W., determination of sodium sulphate in sulphonated oils, B., 417.
- Hercik, F., photocapillary reaction of plant sap, A., 93.
photocapillary reaction of plant phosphatides. I. Influence of salts on the reaction. II. The photocapillary reaction in presence of iron, A., 1163.
- Hercules Powder Co., and Wiesel, J. B., treatment of nitrocellulose [for removal of water], (P.), B., 731.
- Hercules Powder Co. See also Butts, D. C., Champney, H. H., Johnston, A. C., Shapleigh, J. H., Smith, Roscoe B., Speicher, J. K., Stoops, B. J., and Troxler, B.
- Herendeen, H. C., preparation of dough, (P.), B., 653.
- Hereng, M. H., water-gas producer, (P.), B., 5.
- Hereward, H. W., Thomas, J., and Scottish Dyes, Ltd., [anthraquinone] dyestuffs and intermediates, (P.), B., 667.
- Herfurt, E. See Meyer, F.
- Herget, L. See Lehmann, K. B.
- Hering, K., electrically heating oils and hydrocarbons, (P.), B., 116.
- Heriot, M. M., [pressure chamber for] curing of raw meats, such as hams, bacon, fish, etc., (P.), B., 912.
- Hérissey, H., utilisation by *Aspergillus niger* of gein, the eugenol-yielding glucoside of the roots of *Geum urbanum*, A., 208.
extraction of asperuloside from *Galium verum*, L.; presence of the glucoside in *Rubiaceae*, A., 335*.
- Hérissey, H., and Boivin, R., preparation of sinigrin, A., 207, 337*.
chemical nature of the sulphur-containing glucoside of *Alliaria officinalis*, A., 208, 335*.

- Hérissey, H., and Chalmers, A., determination of reducing sugars, especially dextroses, in presence of hydrocyanic acid, with alkaline copper solutions, A., 1358.
- Héritier, A. See Rupe, H.
- Herles, F., determination of ash in raw [beet] sugars by incineration and by the electrometric method, B., 30.
- Herlinger, E., crystal form and optical activity, A., 221.
- Herlinger, H. V. See Beebe, M. C.
- Herman, G. N., and Alloy Steel Corporation, preparation of an alloy steel for die blocks, etc., (P.), B., 269.
- Hermann, H., apparatus for drawing sheet glass, (P.), B., 749.
- Hermann, O., and Thermo-Electric Battery Co., thermocouple, (P.), B., 59.
- Hermann, S., "kombucha." I. and II., A., 330.
- Hermansen, A., tunnel kilns, (P.), B., 657.
- Hermanson, S. See Andrus, O. E.
- Herminghaus & Co. G.m.b.H., and Wenz, K. L., modifying the capacity of cellulose-containing materials for taking up colours, (P.), B., 355.
- Herndon, O. K. See D'Yarmett, E. C.
- Herold, F., velocity distribution of photo-electrons, A., 452.
- Herold, P., Koppe, P., and Grasselli Dyestuff Corporation, production of primary [aryl]amines, (P.), B., 474.
- Herold, W., repeated stress, structure, and damping [of special steels], B., 713.
- Herold, W. See also Henrich, F.
- Herold Aktien-Gesellschaft. See Jäger, A.
- Heron, H., sulphites [in beer], B., 620.
- Herr, W. N., and Noyes, W. A., jun., photochemical studies. VII. Photochemical decomposition of formic acid liquid and vapour, A., 1198.
- Herrdegen, K. See I. G. Farbenind. A.-G.
- Herrera, L. A., thermotropism and constants of colpoids, A., 238. artificial albuminous cells, A., 541. imitation of organic forms by means of albumin, A., 913.
- Herrero, A., and De Zubiria, M., phenomena of corrosion of iron and steel, B., 751.
- Herrick, H. T., and May, O. E., production of gluconic acid by the *Penicillium luteum-purpureum* group. II. Optimal conditions for acid formation, A., 804.
- Herrick, H. T. See also May, O. E.
- Herring, P. T., and Hynd, A., action of glucosone on animals, A., 1399.
- Herrington, B. L. See Johnson, A. H.
- Herrmann, G., combined drying-chamber plant and grate furnace, (P.), B., 319.
- Herrmann, G. R. See Denis, W.
- Herrmann, H. See Heller, G.
- Herrmann, J., and Stauber, M., [material for] filters, (P.), B., 74.
- Herrmann, O. See Kalle & Co. Akt.-Ges.
- Herrmann, R. See Mach, F.
- Herrmann, W. O., Haehnel, W., and Consortium für Elektrochemische Industrie, manufacture of rubber-like products, (P.), B., 533*.
- preparation of polymerised vinyl alcohol and its derivatives, (P.), B., 665.
- Herrmann, W. O. See also Baum, E.
- Herrmann & Söhne, Komm.-Ges., drying apparatus with grate firing, (P.), B., 40.
- Herschkevitch, A. T. See Tronov, B. V.
- Herschkovitch, M., system cupric sulphate-ammonium oxalate-ammonia, A., 957.
- Herschman, H. K., air-hardening of rivet steels, B., 299.
- Herszheim, S. See Fichter, F.
- Herszinkel, H., and Wertenstein, L., attempt to accelerate the rate of radioactive transformation, A., 1169.
- Hertel, E., manufacture of α -naphthylamine-4:6:8-trisulphonic acid, (P.), B., 597.
- Hertel, E., and Cleef, J. van, complex isomerism and complex salt isomerism, A., 998.
- Hertel, E., and Kleu, H., complex salts of amphoteric hydroxy-quinoline derivatives, A., 1260.
- Hertel, E., and Kurth, H., subsidiary valency linking of nitro- and quinonoid groups, A., 1249.
- Herthel, E. C., and Sinclair Refining Co., cracking of oil, (P.), B., 358.
- apparatus for cracking hydrocarbons, (P.), B., 342.
- Herthel, E. C., Tift, T. de C., and Sinclair Oil & Gas Co., recovery of gasoline, (P.), B., 6.
- cracking of hydrocarbon oils, (P.), B., 663.
- Herty, C. H., jun., and Gaines, J. M., jun., desulphurising action of manganese in iron, B., 55.
- effect of temperature on the solubility of iron oxide in iron, B., 674.
- Hertz, G. L. See Naaml. Vennoots. Philips' Gloeilampenfabr.
- Hertzell, E. A. See Hall, R. E.
- Hervé, economic preparation of silver gelatinobromide plates, and the duration of their sensitivity, B., 692.
- Herz, E. von, initiating composition [for explosives], (P.), B., 213.
- Herz, R., Schulte, F., and Grasselli Dyestuff Corporation, manufacture of 1-amino-3-hydroxynaphthalene-8-carboxylic acid [8-amino-3-hydroxy- α -naphthoic acid], (P.), B., 118*, 398*.
- Herz, R., Schulte, F., Zerweck, W., and Grasselli Dyestuff Corporation, conversion of cyanonaphthalenesulphonic acids, (P.), B., 781*.
- Herz, R., Thiess, K., and Grasselli Dyestuff Corporation, manufacture of violet vat dyes [of 2-thionaphthen-2'-indoleindigo series], (P.), B., 741*.
- Herz, R., Zerweck, W., and Grasselli Dyestuff Corporation, dinaphthylidicarboxylic acid and its manufacture, (P.), B., 923*.
- Herz, W., thermal magnitudes, A., 227.
- internal friction and number of molecules [per unit volume], A., 229.
- heat of vaporisation and number of molecules [in unit volume], A., 368.
- validity of gas equations. IV., A., 470.
- deduction from two diffusion equations, A., 588.
- latent heat of fusion and vibration frequency, A., 696.
- liquid state, A., 697.
- free-space numbers. II., A., 698.
- connexion between the properties of liquids and orthobaric densities, A., 828.
- rate of vibration and molecular packing of organic compounds, A., 937.
- validity of the gas laws, A., 942.
- equal viscosities. II., A., 943.
- entropy and vibration frequency of solid inorganic compounds, A., 1179.
- characteristic density and the properties of liquids, A., 1179.
- Herz, W., and Knaebel, E., surface tension of solutions, A., 358.
- Herz, W., and Scheliga, G., internal friction of solutions and mixtures, A., 355.
- Herzberg, F., production of a gaseous mixture from pulverised coal, (P.), B., 560.
- Herzberg, G., continuous spectra in hydrogen, A., 1.
- electrodeless ring discharge in hydrogen, A., 97.
- spectrum of electrodeless ring discharge in hydrogen, A., 97.
- cathode rays in the electrodeless ring discharge, A., 213.
- influence of containing walls on the after-glow of nitrogen and oxygen, A., 457.
- structure of the negative bands of nitrogen, A., 808.
- resonance fluorescence of cyanogen, A., 813.
- energy distribution in band spectra, especially in nitrogen bands, A., 931.
- spectroscopic data relating to the afterglow in nitrogen, A., 931.
- dissociation energy of nitrogen, A., 1165.
- Herzberg, W., Hoppe, G., and Grasselli Dyestuff Corporation, manufacture of coeruleinsulphonic acids, (P.), B., 153*.
- Herzfeld, F., ascertaining the optical properties of liquids and gases, (P.), B., 698.
- Herzfeld, K. F., theory of forced double refraction (photoelasticity), A., 1082.
- Herzner, R., prolamine of wheat flour, B., 688.
- Herzog, A., preparation of cross-sections of artificial silk, B., 47.
- Herzog, E., and General Electric Co., treatment of [massive] silica articles, (P.), B., 749.
- Herzog, R. O., scleroproteins, A., 659.
- relation between elastic properties and structure of organic fibres, A., 707.
- Herzog, R. O., and Jancke, W., X-ray spectra of organic substances in the solid and the liquid state, A., 464.
- X-ray investigations on cellulose. IV., A., 819.
- X-ray observations with cellulose, A., 1079.
- Herzog, R. O., and Náray-Szabó, S. von, X-ray investigation of cellulose nitrate, A., 48.
- Herzog, R. O. See also Bergman, M.
- Hess, A. See Windaus, A.
- Hess, C. B. See Sunier, A. A.

- Hess, *F. L.*, and Foshag, *W. F.*, crystalline carnotite from Utah, A., 611.
- Hess, *J.* See Kirschner, *F.*
- Hess, *K.*, cryoscopic behaviour of cellulose acetate, A., 48.
- Hess, *K.*, Friese, *H.*, and Smith, *F. A.*, starch. I. Potato starch, A., 1225.
- Hess, *K.*, and Komarevsky, *V.*, isolation and detection of cellulose in peat, B., 509.
- Hess, *K.*, and Linbitsch, *N.*, cellulose. XXXII. Characterisation of cellulose preparations by the rotation method, A., 1360.
- acetylation of cellulose with pyridine and acetic anhydride, B., 705.
- Hess, *K.*, and Lüttke, *M.*, substances accompanying cellulose. III. Isolation of mannan and xylan from pine sulphite pulp, A., 1361.
- Hess, *K.*, Lüttke, *M.*, and Rein, *H.*, substances accompanying cellulose. V. Cellulose from young shoots and old heart wood, A., 1361.
- Hess, *K.*, and Micheel, *F.*, oxygen bridges in sugars. IV. Anhydrides of 2:3:6-trimethylglucose, A., 1358.
- Hess, *K.*, Micheel, *F.*, and Littmann, *O.*, oxygen bridges in sugars. V. Method of determining α - or β -configuration of disaccharides, A., 1359.
- Hess, *K.*, Micheel, *F.*, and Reich, *W.*, cellulose. XXXIII. Detection of a foreign substance in cellulose fibres. II., A., 1360.
- Hess, *K.*, and Müller, *Alexander*, cellulose. XXXV. Crystalline triethylcellulose. II., A., 1360.
- Hess, *K.*, and Trogus, *C.*, cellulose, A., 1225.
- Hess, *K.*, Trogus, *C.*, and Friese, *H.*, cellulose. XXXIV. Trimethylcellulose, A., 1360.
- Hess, *K.* See also Bincer, *H.*
- Hess, *R. W.*, Cunningham, *O. D.*, and National Aniline & Chemical Co., Inc., manufacture of indophenols, (P.), B., 361.
- Hess, *R. W.*, Siemann, *J. C.*, and National Aniline & Chemical Co., Inc., alkylation of carbazole, (P.), B., 360.
- Hess, *R. W.* See also Mortimer, *F. S.*
- Hess, *W.*, treatment of hydrocarbons, (P.), B., 438.
- Hess, *W.*, and Allgemeine Gesellschaft für Chemische Industrie m.b.H., treatment of oils [hydrocarbons] with liquid sulphur dioxide, (P.), B., 595*.
- Hesse, *E.*, Meissner, *G.*, and Quast, *G.*, chemotherapy of tuberculosis. I., A., 1286.
- Hessel, *L.* See Heller, *G.*
- Hesselmann, *H.*, growth of seedlings of conifers in crude humus. I. Transformation of nitrogen in crude humus, B., 535.
- Hessenbruch, *W.*, and Oberhoffer, *P.*, rapid determination of gases in metals, especially oxygen in steel, B., 409.
- Hesslé, *E. T.*, and Leigemann, *W.*, apparatus for the conversion of hydrocarbon oils, (P.), B., 253.
- catalytic apparatus [for oils], (P.), B., 513.
- Hestermann, *A.*, crystal form of carbamide nitrate, A., 110.
- Hetényi, *G.*, mechanism of the action of synthalin, A., 794.
- Hetherington, *H. C.*, Pinek, *L. A.*, and Lamb, *A. B.*, production of cyanamide from calcium cyanamide, (P.), B., 747.
- Hetherington, *J.* See Fraser, *H. A.*
- Hettche, *O.* See Wrede, *F.*
- Hettich, *A.*, [silver subfluoride], A., 493.
- distinction between *d*- and *l*-crystals by means of X-rays, A., 822.
- Hettich, *A.*, and Schleede, *A.*, polarity and piezo-electric excitation, A., 351.
- method of crystal class determination, A., 1080.
- Hettich, *A.*, Schleede, *A.*, and Schneider, *E.*, tetrahedral carbon atom and the crystal structure of pentacerythritol, A., 821.
- Hettich, *A.* See also Schleede, *A.*
- Heuberger, *J. F.* See Ramberg, *L.*
- Heuck, *K.* See Schöpf, *C.*
- Heuckeroth, *A. W. van*. See Gardner, *H. A.*
- Heudebert. See Stolk, *D. van*.
- Heuer, *R. P.*, effect of iron and oxygen on the electrical conductivity of copper, A., 9.
- Heukelekian, *H.*, volatile acids in digesting sewage sludge, B., 656.
- Heukelekian, *H.*, and Rudolfs, *W.*, carbon and nitrogen transformation in fresh sewage solids digestion, B., 245.
- Heumann, *J.* See Voigt, *J.*
- Heuser, *E.*, and Sehorsch, *G.*, action of alkali and carbon disulphide on xylan, A., 1219, 1358.
- Heuser, *R. V.*, and American Cyanamid Co., guanidine compound, (P.), B., 327.
- Heuser, *R. V.*, and Burrage, *A. C.*, manufacture of phenyl-*o*-tolylguanidine, (P.), B., 474.
- vulcanisation of rubber, (P.), B., 681, 868.
- Heusler, *F.* [with Dönniges, *E.*], manganese-copper alloys, and the improvement of their physical properties, A., 699.
- Heusler, *O.*, Heusler's alloys; manganese-aluminium-copper, A., 710.
- Heussler, *O. von*. See Merck, *E.*, Chem. Fabr.
- Hevesy, *G. von*, radioactivity of potassium, A., 4.
- Hevesy, *G. von*, and Lögstrup, *M.*, separation of isotopes of potassium, A., 684.
- Hevesy, *G. von*, and Rienäcker, *G.*, interweaving of crystal gratings, A., 112.
- Hevesy, *G. von*. See also Coster, *D.*
- Hewer, *H. R.*, Jairam, *H.*, and Schryver, *S. B.*, chemical changes in the proteins of muscular tissue when passing into rigor, A., 323.
- Hewetson, *H. H.* See Beacon Oil Co.
- Hewitt, *H.* See British Arkady Co., Ltd.
- Hewitt, *H. G.*, Plueckiger's test for thymol and carvacrol, A., 999.
- corolla of *Monarda punctata*, L., A., 1062.
- Hewitt, *L. F.*, combination of proteins with phthalein dyes, A., 81.
- pigment obtained from faeces, A., 440.
- Hewitt, *L. F.*, and Florey, *H.*, effect of drugs on the protein content of the cerebrospinal fluid of rabbits, A., 670.
- Hey, *D. H.*, effects of the spatial position of substituent groups on acidic strength, A., 1188.
- Hey, *D. H.* See also Hinkel, *L. E.*
- Heyden, *H. von der*, and Typke, *K.*, determination of the tar value [of mineral oils], B., 250.
- Heyer, determination of hydrogen in fire-damp, B., 42.
- occurrence and detection of hydrogen in mine air, B., 660.
- Heyl, *F. W.*, and Hart, *M. C.*, chemistry of the ovary. XIII. Water-soluble extractives of ovarian residue, A., 83.
- availability of the calcium in calcium lactate in man, A., 546.
- Heyl, *F. W.* See also Hart, *M. C.*
- Heyl, *G.*, and Heil, *H.*, cortex of *Byrsonima crassifolia*, A., 208.
- Heyl, *G. E.*, fibrous paint [for coating walls], (P.), B., 159*.
- Heyl, *G. E.*, and Hycolite Liquid Wallpaper Manufacturing Co., Ltd., manufacture of cardboard, (P.), B., 811.
- Heylandt, *C. W. P.*, separating and liquefying gaseous mixtures, especially air, into the components, (P.), B., 802.
- Heyman, *W. A.*, production of chocolate-milk compositions, (P.), B., 942.
- Heymann, *E.*, slow hydrolysis of ferric chloride, A., 703.
- degree of dispersion of solutions of metals in molten salts (pyrosols), A., 1185.
- artificial silk, (P.), B., 852.
- Heymann, *E.*, and Oppenheimer, *F.*, equilibria between albumin and metallic salts (silver nitrate, ferric chloride, gold chloride), A., 1388.
- Heymann, *E.* See also Bechhold, *H.*
- Heymons, *A.* See Braun, *J. von*.
- Heyn, *M.*, and Kahlbaum Chem. Fabr. G.m.b.H., C. A. F., production of aminoguanidines and their alkyl derivatives, (P.), B., 548*.
- Heyn, *W.* See Strauss, *F.*
- Heyna, *H.* See Fischer, *Erich*.
- Heyne, *W.*, and Póányi, *M.*, adsorption from solutions, A., 581.
- Heynemann, *W.* See Weygand, *C.*
- Heynen, *F. A.* See Thoms, *H.*
- Heyroth, *F. F.* See Cohn, *E. J.*
- Heyrovský, *J.*, reduction of oxygen at a mercury dropping-cathode, A., 968.
- Heyrovský, *J.* See also Emelianovna, *N. V.*
- Hezlet, *R. K.*, and Genders, *R.*, manufacture of aluminium-nickel-silver alloys, (P.), B., 234.
- Hezlet, *R. K.*, and Highfield, *A.*, manufacture of explosives, (P.), B., 38.
- Hibbard, *P. L.*, brief method for chemical examination of irrigation waters and alkali soils, B., 538.
- Hibbard, *R. P.* See Miller, *E. V.*
- Hibben, *J. H.*, [decomposition of nitrogen oxides]. I. Effect of radiation on the decomposition of ozono and nitrous oxide. II. Low-pressure decomposition of nitrogen pentoxide and nitrous oxide, A., 601.

- Hibben, J. H., platinum-tungsten welding, A., 608.
electromagnetic vacuum cut-off, A., 610.
- Hibbert, (Miss) E., effect of light on coloured [cotton] fabric. II., B., 854.
- Hibbert, (Miss) E. See also Scholefield, F.
- Hibbert, H., and Burt, C. P., carbohydrates and polysaccharides. XIII. Properties of γ -dihydroxycarbonyl derivatives and their bearing on the polymerisation of polysaccharides, A., 740.
- Hibbert, H., Gillespie, W. F., and Montonna, R. E., reactions relating to carbohydrates and polysaccharides. XIV. Polymerisation of aldehydes, A., 991.
- Hibbert, H. See also Hill, H. S.
- Hibner, O. See Haase, J.
- Hiby, W. See Naaml. Vennoots. Silica en Ovenbouw Mij.
- Hickman, K., and Hyndman, D., electrical solution-mixing device, A., 389.
- Hicks, C. S., basal metabolism of man on a diet rich in nucleic acid, A., 87.
- Hicks, C. S. See also Robertson, T. B.
- Hicks, W. M., analysis of the copper spectrum. II. Complex separations and quadruplet relations, A., 1.
- Hickson, E. F. See Walker, P. H.
- Hickton, R., Bagguley, W. W., and Hickton, R. G., bricks or blocks for furnace building, etc., (P.), B., 774.
- Hickton, R., Bagguley, W. W., Birks, G., and Hickton, R. G., furnaces for steam boilers, retorts, etc., (P.), B., 878.
- Hickton, R. G. See Hickton, R.
- Hidnert, P., and Sweeney, W. T., thermal expansion of beryllium, A., 1315.
thermal expansion of beryllium and aluminium-beryllium alloys, B., 160.
thermal expansion of alloys of the stainless iron type, B., 335.
thermal expansion of magnesium and some of its alloys, B., 930.
- Hieber, W., and Bader, G., reactions and derivatives of iron carbonyl. II. Compounds of iron halides and carbon monoxide, A., 1202.
- Hieber, W., and Leutert, F., specific action of the oxime group on metallic salts. I. Reactions of cobalt, nickel, and copper salts with aldoximes. II. Reactions of ketoximes with metallic salts, A., 46.
- Hieber, W., and Mühlbauer, F., relationship between ring closure and "specific affinity"; complex compounds of bivalent silver, A., 1381.
- Hieber, W., and Sonneckal, F., relationships between ring closure and "specific affinity"; ethylenediamine compounds of thallic halides, A., 510.
- Hiedemann, E., high-frequency glow discharge in hydrogen, A., 572.
promotion of the emission of the Balmer lines by the addition of argon, A., 1293.
Fulcher spectrum of hydrogen, A., 1293.
- Hiernaux. See Labbé, M.
- Hiers, G. S., [preparation of] triphenylstibine, A., 434.
- Hieulle, A. See Fosse, R.
- Higasi, T., fermentation products. III. Effect of vessel on the constituents of "saké," B., 726.
- Higasi, T., and Maruyama, S., synthesis of acetylmethylcarbinol and its two homologues and their odour, A., 1219.
- Higasi, T. See also Maruyama, S.
- Higgins, C. See General Electric Co.
- Higgins, E. B., and British Synthetics, Ltd., manufacture of chlorides of aromatic α -hydroxycarboxylic acids, (P.), B., 808*.
- Higgins, E. B., and United Water Softeners, Ltd., process involving [base-exchange reactions [in water], (P.), B., 550*.
- Higgins, E. B. See also United Water Softeners, Ltd.
- Higgins, R. See Hay, R.
- Higgins, W. F. See Kaye, G. W. C.
- Higberger, J. H. See McLaughlin, G. D.
- Highfield, A. See Hezlet, R. K.
- Hightower, F. W., and White, A. H., synthesis of methane from water-gas, B., 147.
- Hightower, F. W. See also White, A. H.
- Higochi, rice; oxidase, A., 1408.
- Hignchi. See Sugimoto.
- Hiki, O. See Komatsu, S.
- Hilbrenner, J. L. A., porcelain-like electric insulating substance, (P.), B., 934.
- Hilcken, V. See Rothmann, A.
- Hildebrand, B., dehydration of oil [emulsions], (P.), B., 81.
- Hildebrand, J. H., osmotic pressures of concentrated solutions, A., 947.
- Hildebrand, J. H. See also Bent, H. E., and Westwater, W.
- Hildebrandt-Sørensen, C., method and apparatus for treating crystallised margarine mass, (P.), B., 210.
- Hildebrandt, F. M. See Hoffman, C.
- Hilditch, T. P., chemical composition of vegetable seed fats in relation to the natural order of plants, A., 1059.
- Hilditch, T. P., and Houlbrooke, A., composition of the fatty acids present as glycerides in elasmobranch oils, B., 612.
- Hilditch, T. P., and Jones, (Miss) E. E., seed fats of the *Umbelliferae*. I. *Heracleum sphondylium* and *Angelica sylvestris*, A., 560.
ill-defined acids of the oleic series. IV. "Cheiranthic acid" of wallflower seed oil, B., 307.
- Hilditch, T. P., and Lea, C. H., constitution of the glycerides in natural fats, A., 152.
quantitative study of the oxidation of methyl oleate and claidate by hydrogen peroxide in presence of acetic acid, A., 868.
- Hilditch, T. P., and Lovern, J. A., head and blubber oils of the sperm whale. I. Determinations of the mixed fatty acids present, B., 307.
- Hilditch, T. P., Riley, T., and Vidyarthi, N. L., fatty acids of seed oils of *Brassica* species; composition of rape, ravigon, and mustard seed oils, B., 306.
ill-defined acids of the oleic series. III. "Rapic acid" and other acids of rape and mustard seed oils, B., 307.
- Hilditch, T. P., and Vidyarthi, N. L., fatty acids of cohune nut fat, B., 201.
- Hilditch, T. P. See also Collin, G.
- Hildreth, A. C., determination of hardness in apple varieties and the relation of some factors to cold resistance, B., 136.
- Hilferding, K. See Abel, E.
- Hilger, Ltd., A., and Twyman, F., heat-treatment of metal [iron or steel] articles, (P.), B., 575.
- Hill, A. C. See Hill, H. S.
- Hill, A. E., ternary systems. VII. Periodates of the alkali metals, A., 1329.
- Hill, A. J., and Tyson, F., preparation of higher acetylenes. I. Dehalogenation of *aa*-dichloroheptane in the vapour phase, A., 269.
- Hill, A. V., preparation of oxygen-free nitrogen or hydrogen, A., 261.
constant-temperature bath, A., 266.
- Hill, A. V. See also Eggleton, G. P.
- Hill, B. E. See Jensen, F.
- Hill, C. W., refining iron and steel, (P.), B., 931.
- Hill, D. W. See Anderson, L.
- Hill, E., and Van Vleck, J. H., quantum mechanics of the rotational distortion of multiples in molecular spectra, A., 1076.
- Hill, E. See also Blatherwick, N. R.
- Hill, E. C., terra-cotta slips, B., 605.
- Hill, E. E. See Cross, H. C.
- Hill, E. L., identification of alkyl and aryl halides, A., 269.
- Hill, E. S. See McHargue, J. S.
- Hill, H. See Pardoe, H.
- Hill, H. E., the formal tests for distinguishing artificial from natural foodstuffs, B., 872.
- Hill, H. S., vinyl derivatives: their relationship to sugars and polysaccharides, A., 1213.
- Hill, H. S., Hill, A. C., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XVI. Separation and identification of the isomeric ethyleneglycerols, A., 1114.
- Hill, H. S., and Pidgeon, L. M., mechanism of the acetal reaction; explosive rearrangement of hydroxyethyl vinyl ether to ethyleneglycol, A., 1213.
- Hill, H. S., Whelen, M. S., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XV. The isomeric benzylideneglycerols, A., 1213.
- Hill, J. See Horsfall, R. S.
- Hill, J. B., and Atlantic Refining Co., conversion of [recovery of lead compounds from] lead sludge, (P.), B., 447.
treatment of lead sludge [from gasoline purification], (P.), B., 807.
- Hill, J. B., and Coats, H. B., viscosity-gravity constant of petroleum lubricating oils, B., 592.
- Hill, J. B. See also Delbridge, T. G., and Miller, S. P.
- Hill, J. W. See Davis, T. L.

- Hill, R., condensation of certain β -ketonic esters with *o*-hydroxy-monostyryl ketones, A., 426.
- Hill, S. E., diffusion of oxygen through rubber and various other substances, A., 1204.
- Hill, W. H. See Koppers Co.
- Hill, W. L. See Yoe, J. H.
- Hille, P. See Deussen, E.
- Hiller, A. See Van Slyke, D. D.
- Hiller, E. O. See British Hartford-Fairmont Syndicate, Ltd.
- Hillig, F. See Hartmann, B. G.
- Hillkowitz, W., absorption phenomena in acid soils, B., 582.
- Hills, R. J. See Hargreaves, F.
- Hilman, G. C., and Alderks, O. H., vanillin derivatives, A., 178.
- Hilsch, R., and Pohl, R. W., first ultra-violet characteristic frequency of a simple crystal, A., 812.
- Hiltner, E., increase of iodine content of plants, B., 723.
- Himmat, M. A. See Rowe, F. M.
- Himmel, H., crystal form of methyl tetrathionoxalate, A., 224.
- Himmelright, R. J. See Stevens, E. P.
- Himmelsbach, J., preservation of wood, (P.), B., 405.
- Himmelsbach Gebrüder Akt.-Ges., production on wood of a protective coating impervious to water, (P.), B., 405.
- Himmen, E. See Helferich, B.
- Himmerich, F., simultaneous protease and residual nitrogen determination for blood, A., 193.
- Hincke, W. B. See Prescott, C. H., jun.
- Hind, G. E. L., uses of esterified cotton, B., 809.
- Hind, H. L. See Lancaster, H. M.
- Hindemith, G. See Müller, Erich.
- Hindmarsh, E. M., basal metabolic rate of students in Sydney, N.S.W., A., 322.
- Hindrichs, G. See Wever, F.
- Hines, J., manufacture of road materials, (P.), B., 642.
- Hines, J. T. See Brown, A. C.
- Hinglais, H. See Javillier, M.
- Hinkel, L. E., Ayling, E. E., and Bevan, L. C., dichloro-*o*-xylenes, A., 995.
chloro-*o*-xylenols. II. 3-Chloro-*o*-4-xyleneol, the dichloro-*o*-4-xyleneols, and 4:5-dichloro-*o*-3-xyleneol, A., 1238.
- Hinkel, L. E., and Hey, D. H., conversion of hydroaromatic into aromatic compounds. II. Action of bromine on 5-chloro- and 5-bromo-1-phenyl- Δ^4 -cyclohexen-3-one, A., 760.
syntheses in the diphenyl series, A., 996.
conversion of hydroaromatic into aromatic compounds. III. 3:5-Dichloro-1-phenyl- $\Delta^{4:2}$ -cyclohexadiene and its behaviour with chlorine, A., 1364.
- Hinkel, L. E. See also Coates, J. E.
- Hinnüber, J. See Strauss, B., and Tammann, G.
- Hinsberg, K., and Lang, K., colorimetric micro-determination of phosphate [in urine], A., 914.
- Hinshelwood, C. N., homogeneous catalysis, A., 1334.
- Hinshelwood, C. N., and Thompson, H. W., kinetics of the combination of hydrogen and oxygen, A., 483.
- Hinshelwood, C. N. See also Allen, P. C., Gibson, C. H., and Hutchison, W. K.
- Hinton, C. L., and Macara, T., determination of aldose sugars by means of chloramine-T, with special reference to the analysis of milk products, B., 66.
- Hinton, G. B., manufacture of cementitious material of cellular structure, (P.), B., 266, 672*, 860*.
apparatus for making a spumous mass of cementitious material, (P.), B., 860.
- Hintzmann, K., apparatus for the analysis of solutions, especially bleach liquors containing chlorine, B., 478.
- Hippel, A. von, physical interpretation of thermo-electric emission, A., 467.
physical interpretation of electrolytic solution potentials, A., 481, 596.
- Hippel, A. von. See also Blechschmidt, R.
- Hirao, T., Suzuki, S., and Suzuki, T., manufacture of abrasives, (P.), B., 712.
- Hiraoka, T., respiration of the frog's heart. I. Oxygen consumption of the surviving frog's heart perfused with Ringer, Tyrode, and Locke solutions, A., 442.
- Hiraoka, T. See also Arnoldi, W.
- Hirose. See Grasser, G.
- Hirose, M., relation between the properties and composition of soaps. IV. Viscosity, lathering power, and washing power of stearic-oleic-lauric acid soap solutions, A., 836.
- Hirose, M., relation between the properties and composition of soaps. IV. Surface tension and emulsifying power of palmitic, oleic, and lauric acid soaps, A., 836.
relation between the properties and composition of soaps. V. Drop number and the surface tension of lauric-oleic acid soaps, A., 836.
relation between the properties and composition of soaps. I. Soaps of stearic and oleic acids. II. Surface tension and emulsifying power of stearic, oleic, and lauric acid soaps, B., 339.
- Hirsch, A. See Frieden, A., and Kautsky, H.
- Hirsch, B. See Ruff, O.
- Hirsch, H., properties of magnesia bricks, B., 367.
- Hirsch, O. See Fischler, F.
- Hirsch, P., manufacturing from gelatin articles such as threads, cords, ribbons, tubes, etc., otherwise made from animal intestinal canals or skins, (P.), B., 937.
- Hirsch, P. See also Paweck, H.
- Hirsch, Paul, alcohol. IV. Determination of ethyl alcohol in urine, A., 443.
- Hirsch, Paul, and Kiesgen, J., comparative acidimetric investigation of meat extracts, sauces, etc., B., 834.
- Hirsch, Paul. See also Tillmans, J.
- Hirsch Kupfer- & Messing-Werke, A. G., charging of high-frequency melting furnaces, (P.), B., 574.
- Hirsch & Sohn, Zinkhütte Hamburg, A. See Nathansohn, Metall- & Farbwerke A.-G., A.
- Hirschel, W., spark producer as an atomiser of salt solutions for flame spectra and the photography of their spark spectra, A., 449.
measurement of spectral photographs, A., 572.
- Hirschhorn, S., and Pollak, L., influence of adrenaline on acetone excretion in disease, A., 331.
- Hirschhorn, S., and Robitschek, W., urinary hæmatoporphyrin excretion in chronic lead poisoning, A., 1053.
- Hirsch-Kauffmann, H. See Falkenhausen, M. von.
- Hirsch-Lederer Syndicate, Inc. See Downs, C. R.
- Hirschler, L., displacement of absorption bands of organic dyes, dissolved in different alcohols with constant and varying concentrations of dye, A., 106.
- Hirst, E. L. See Haworth, W. N.
- Hirst, H. R., determination of oil in textiles, B., 153.
causes of uneven dyeing [of wool], B., 566.
- Hirst, H. R., King, P. E., and Lambert, P. N., transmission of ultra-violet radiation by various fabrics, B., 362.
- Hirst, J. F. See Ellis, B. A.
- Hirve, N. W. See Meldrum, A. N.
- Hisamoto, J., and Takeshima, M., anomalies in the regulation of blood-sugar under Röntgen irradiation, A., 200.
- Hissink, D. J., Spek, J. van der, Dekker, A., Dekker, M., and Oosterveld, H., soil adsorption, B., 581.
- Hitch, A. R. See Calcott, W. S.
- Hitchcock, D. I., extrapolation of E.M.F. measurements to unit ionic activity, A., 1098.
- Hixon, R. M. See Allison, J. B., and Harlan, W. R.
- Hixon, A. W., Balls, A. K., and Fleischmann Co., increasing the activity of yeast and activator for yeast, (P.), B., 171.
- Hjerpsted, H. G., preparation of solvents, etc. from resins, (P.), B., 165.
- Blasko, M., and Wazewski, D., electrical conductivity of hydrochloric, hydrobromic, and hydriodic acids, and the mobility of the hydrogen ion, A., 1329.
- Blavica, B., hydrogenation of coal in presence of catalysts, B., 629.
- Blavinka, V., clarification of waste tannery liquors and their utilisation for agricultural purposes, B., 310.
- Hoag, J. B., wave-length of carbon, oxygen, and nitrogen in the extreme ultra-violet with a concave grating at grazing incidence, A., 679.
- Hoag, L. E. See Papish, J.
- Hobbs, D. B. See Archer, R. S.
- Hobbs, W. H., and Lane, A., preservation of meat, (P.), B., 243.
- Hobson, F. E., and Shelton, J. F., fuel-distilling apparatus, (P.), B., 737.
- Hochberg, B. See Ussataja, N.
- Hochberger, E., technical reaction vessel, B., 287.
manufacture of ammonium chloride from ammonium sulphate and common salt, B., 296.
bleaching of sulphite-cellulose in higher stuff-density, B., 565.
- Hochheim, E. See I. G. Farbenind. A.-G.

- Hochhut, J., manufacture of refractory articles of clay, (P.), B., 524.
- Hochstadter, I. See Stoddard, W. B.
- Hochstein, L., and Brown, E. T., heat-resistant borosilicate glass, (P.), B., 859.
- Hochstetter, H. von, and Holzverkohlungs-Industrie Akt.-Ges., manufacture of anhydrous salts of fatty acids, (P.), B., 124.
- Hochstetter, H. von. See also Freudenberg, K.
- Hochwalt, C. A. See Thomas, C. A.
- Hock, A., Wolff's calcimeter for the continuous gasometric determination of calcium carbonate, A., 1205.
- Hock, H., and Stuhlmann, H., reaction between acetone and ammonia, A., 508.
- action of mercury salts on iron pentacarbonyl, A., 1344.
- Hock, H. See also Gelsenkirchener Bergwerks-A.-G.
- Hock, L., and Barth, W., structure of stretched synthetic rubber, A., 818.
- Hocker, I. S., and Hocker Corporation, extraction of fats from vegetable matter [cacao beans], (P.), B., 761.
- Hocker Corporation. See Hocker, I. S.
- Hodeige, E., plant for washing coal or other mineral substances, (P.), B., 807.
- Hodge, E. T., quantitative mineralogical and chemical classification of igneous rocks, A., 730.
- Hodges, W. F., and General Electric Co., treatment of ferrous metal [steel], (P.), B., 161.
- Hodgson, A. H., paper pulp from logging waste in the Douglas fir region, B., 851.
- Hodgson, H. H., mercuration of *o*-nitrophenol, A., 80.
- Hodgson, H. H., and Handley, F. W., direct methylthiolation; application in the preparation of substituted thioanisoles, A., 168.
- colour and constitution. II. Effect of substituents on the colour of azo-dyes, A., 284.
- sulphur derivatives of aromatic methyl ethers, A., 518.
- colour and constitution. III. Influence of the methylthiol, methoxy-, and chlorine groups on the colours of the nitrobenzaldehydephenylhydrazones, A., 1008.
- Hodgson, H. H., and Jenkinson, T. A., Reimer-Tiemann reaction with *m*-bromo- and *m*-iodo-phenol, A., 178.
- nitration of 4-halogeno-2-hydroxy- and 2-halogeno-4-hydroxybenzaldehydes, A., 1134.
- Hodgson, H. H., and Kershaw, A., adjacent substitution. I. Reactions of 3-chloro-2-aminoanisole, A., 284.
- halogenoaminophenols, A., 1369.
- Hodgson, H. H., and Nixon, J., nitration of *m*-fluorophenol, A., 998.
- Hodgson, H. H., and Wignall, J. S., nitrosation of phenols. V. An *o*-nitrosophenol, A., 408.
- Höfer, P., recovery of bromine from iron bromide, B., 813.
- Höfer, P. See also Kali-Forschungs-Anstalt G.m.b.H.
- Hoeffler, J., and Hoeffler & Co., Inc., J., manufacture of water-colour printing ink, (P.), B., 614.
- Hoeffler & Co., Inc., J. See Hoeffler, J.
- Höfner, H. See Siemens-Schuckertwerke Ges.m.b.H.
- Höganäs-Billesholms Aktiebolag and Nordiske Natrolith A./S., softening and purification of water, (P.), B., 504.
- Högler, F., and Ueberrack, K., refraction differences [of serum and plasma]. I.-IV., A., 1150.
- Hoek, C. P. van, red lead problems. I. Settling and hardening of red lead. II. Colour of red lead. III. Red lead as a composite pigment, B., 164.
- zinc oxide paints, B., 679.
- Hök, W. See Sandqvist, H.
- Hölkenseide G.m.b.H., treatment of artificial silk manufactured by the stretch-spinning process, (P.), B., 259.
- separation of copper sludge from the coagulating liquors used in the manufacture of artificial silk, (P.), B., 188.
- Höltzing, P. F., [circulating device for] apparatus for dyeing hanks of yarn, (P.), B., 640.
- Hölzl, F. [with Xenakis, G. I.], alkylation of hydromolybdenocyanic acid, A., 279.
- Hölzl, F., and Viditz, F., alkylation of hexacyanochromic acid [hydrochromicyanic acid], A., 1124.
- Hoen, R. E. See Hellerman, L.
- Hönig, P., production and composition of decolorising carbons, B., 177.
- Hönigschmid, O., at. wt. of silver, A., 1168.
- Hönigschmid, O., and Schilz, W. E., revision of at. wt. of uranium; analysis of uranous chloride, A., 569.
- Hönigschmid, O. See also Bodenstein, M.
- Hönsch, G., preparation of a cold glue powder, (P.), B., 723.
- Hoerr, H. W. See Keyes, D. B.
- Hörth, O. See Küster, W.
- Hoesch, K., [nuclear condensation of phenols with nitriles], A., 169.
- Hoewel, H. F. See Menne, F.
- Hoeven, O. van der, p_H value of distilled water, A., 1203.
- Hof, W. See Mannich, C.
- Hofbrauhaus Wolters & Balhorn A.-G., production of pale, strongly hopped beers, (P.), B., 686.
- Hofr-Massard, H., production of a [grated] almond milk food product, (P.), B., 501.
- Hoff, C. M., development of the process and equipment for the manufacture of chemically pure acid by electrical distillation; hydrochloric and nitric acids, B., 445.
- Hoffa, E., Fischer, Erich, and Grasselli Dyestuff Corporation, azo-dye and its manufacture, (P.), B., 924*.
- Hoffert, W. H. See Somerville, P. G.
- Hoffman, C., Frey, C. N., Hildebrand, F. M., and Fleischmann Co., clarification of cane molasses for the growing of yeast, (P.), B., 940.
- Hoffman, C., and Ward Baking Co., manufacture of food products, (P.), B., 106.
- Hoffman, G., accurate determination of ion-formation by single α -particles and detection of new activities, A., 4.
- Hoffman, R. A., indirect gypsum process for sulphate manufacture, B., 567.
- Hoffman, W. F. See Gortner, R. A.
- Hoffmann, A. See Jacobs, W. A.
- Hoffmann, F., di-iodotyrosine and thyroid substance; Knipping's gas metabolism method, A., 555.
- Hoffmann, G., treatment of liquids such as milk, etc. with rays, particularly ultra-violet rays, (P.), B., 799.
- Hoffmann, H. See Skaupy, F.
- Hoffmann, K., determination of pepsin, B., 139.
- Hoffmann, P. C. See Maxwell, J.
- Hoffmann, U., graphitic acid and the varieties of carbon obtained by its decomposition, A., 379.
- Hoffmann, W. See Arnd, T.
- Hoffmann-La Roche & Co. Aktien-Gesellschaft, F., manufacture of 1:3-di[hydr]oxy-4-carboxy-6-phenylethylbenzene [2:4-dihydroxy- α -diphenylethane-5-carboxylic acid], (P.), B., 36.
- manufacture of salts of diethylaminoethyl *p*-aminobenzoate, (P.), B., 389.
- manufacture of alkyl and aralkyl derivatives of diphenolisatins, (P.), B., 548.
- manufacture of a derivative of hexylresorcinol, (P.), B., 623.
- manufacture of compounds of 5:5-disubstituted barbituric acids with antipyrin, (P.), B., 624.
- manufacture of a difficultly water-soluble glucoside of *Adonis vernalis*, (P.), B., 874.
- Hoffmann-La Roche Chemical Works. See Blankart, A., Karrer, W., and Wuest, H. M.
- Hofmann, E. See Lieske, R.
- Hofmann, F., [fuel for] ore smelting, (P.), B., 645.
- Hofmann, F., and Dunkel, M., [treatment of] mineral lubricating and transformer oils exposed at raised temperatures to air, (P.), B., 472.
- preservation of mineral oils, (P.), B., 514.
- mineral lubricating, transformer, or other oils exposed at raised temperatures to air, (P.), B., 561.
- Hofmann, F., and Otto, M., polymerisation of ethylene, propylene, and butylene, (P.), B., 664.
- Hofmann, H. E., and Reid, E. W., formulation of nitrocellulose lacquers, B., 648.
- graphical methods in lacquer technology, B., 719.
- Hofmann, H. E. See also Reid, E. W.
- Hofmann, U., separation on iron of carbon from carbon monoxide and light petroleum, A., 853.
- separation on iron of carbon from carbon monoxide and light petroleum. II. Crystalline carbon with high adsorptive power, A., 1341.
- Hogan, A. G., and Hunter, J. E., multiple nature of vitamin-B, A., 1059.
- Hogan, A. G., Hunter, J. E., and Kempster, H. L., acceleration of growth rates by dietary modifications, A., 791.
- Hogan, A. G., and Nierman, J. L., animal nutrition. VI. Distribution of the mineral elements in the animal body as influenced by age and condition, A., 787.

- Hogness, *T. R.*, and Kvalnes, *H. M.*, isotopes of neon, A., 1169.
- Holben, *F. J.* See Halsey, *D. E.*
- Holböll, *S. A.*, course of glycolysis in the blood of normal and diabetic subjects, A., 786.
- Holbrook, *W. P.*, and Haskins, *H. D.*, blood-uric acid in nephritis, A., 1274.
- Holcomb, *R.*, and McKibbin, *R. R.*, purification of potassium dihydrogen phosphate, A., 851.
- Holerott, *C. T.*, and Doll, *C. E.*, apparatus [tunnel kiln] for firing ceramic and other products, (P.), B., 368.
- Holde, *D.*, and Bleyberg, *W.*, interpretation of the acetyl value and ester transformation of glycerides by acetic anhydride. II., A., 152.
- Holde, *D.*, Bleyberg, *W.*, and Aziz, *M. A.*, tung oil. I. and II., B., 612.
- Holde, *D.*, and Schünemann, *K. H.*, detection of paraffin in ceresin, B., 469.
- Holden, *G. E.*, method for increasing the affinity of cotton and other fibres for colouring matters, B., 854.
- Holden, *G. E.* See also Livsey, *H.*
- Holden, *G. W.* See Hatcher, *W. H.*
- Holden, *H. F.*, simple spectro-colorimeter, A., 336.
- Holden, *H. F.*, and Freeman, *M.*, globin and denatured globin, A., 1390.
- Holden, *J. A.* See Smith, *W. S.*
- Holder, *F.* See Bertho, *A.*
- Holdway, *S.* See Gas Light & Coke Co.
- Holford, *H. J.* See Elsmore, *E. C.*
- Holgate, *J. E.*, and Walton, *R. R. F.*, blast-furnace practice in Natal, B., 406.
- Holland, *E. B.*, and Gilligan, *G. M.*, electrolytic apparatus for determination of copper in insecticides and fungicides, B., 498.
- Hollander, *C.*, and Gibbons Bros., Ltd., apparatus for discharging gas or coke retorts, (P.), B., 327.
- Hollander, *C. S.* See Rohm & Haas Co.
- Holleman, *A. F.*, [preparation of] xanthone, A., 426.
- [preparation of] xanthidrol, A., 426.
- Holleman, *L. W. J.*, and Werre, *J. P.*, P.D. at the boundary between two liquid phases, A., 245.
- Holley, *E.* See Udale, *S. M.*
- Holley, *W. G.* See Olsen, *J. C.*
- Holliday, *G. C.* See Griffith, *R. H.*
- Holliday, *R. L.* See Industrial Spray-Drying Corporation.
- Holliday & Co., Ltd., *L. B.*, Kitson, *J.*, and Shaw, *C.*, production of dyes [for wool and silk], (P.), B., 666.
- production of grey to black vat dyes, (P.), B., 741.
- dyes, (P.), B., 888.
- Hollinderbäumer, *W.* See Weichel, *O.*
- Hollings, *H.*, applications of chemistry in gas-making, B., 629.
- Hollings, *H.*, and Gas Light & Coke Co., manufacture of mixed phosphatic fertilisers, and recovery of ammonia from industrial gases, (P.), B., 206.
- Hollings, *H.*, Pexton, *S.*, Voss, *W. A.*, and Gas Light & Coke Co., adsorption treatment of fluids for the purification thereof or separation of valuable constituents therefrom, (P.), B., 320.
- Hollins, *C.* See British Dyestuffs Corporation, Ltd.
- Hollis, *H. H.*, gas purifiers, (P.), B., 182.
- valves for use with gas purifiers, (P.), B., 739.
- Hollmann, *H. E.*, mechanism of the oscillation of electrons, A., 810.
- Hollo, *E.*, influence of the ring oxygen atom on the rate of reaction of certain lactones, A., 737.
- Holloway, *A. H.* See Thorne, *P. C. L.*
- Holloway, *R. G.* See Sumner, *J. B.*
- Holluta, *J.*, reaction between arsenite and permanganate in sulphuric acid solution, A., 259.
- Holman, *B. W.*, theory of magnetic separation, B., 305.
- Holmberg, *B.*, stereochemical studies. XVIII. Nitromalic acids. XIX. Diazotisation of aspartic acid and its ethyl ester, A., 1216.
- stereochemical studies. XVII. Optical separation and configuration, A., 1354.
- sulphite-liquor lactones, B., 185.
- chemical decomposition of wood, B., 705.
- Holmboe, *C. F.*, effect of pressure on the voltage required for the electrolytic decomposition of water at constant temperature, A., 482.
- Holmes, *A.*, effect of radon on the solubility of lead uranate, A., 3.
- Holmes, *A.*, problem of geological time. I. Evidence from radioactive minerals, A., 455.
- Holmes, *A.*, and Harwood, *H. F.*, the Whin sill and related dikes of the north of England, A., 1211.
- Holmes, *B. E.* See Watchorn, *E.*
- Holmes, *C. W. H.*, dry-cleaning of coal for carbonisation, B., 288.
- Holmes, *E. L.* See Flürscheim, *B.*
- Holmes, *E. O.*, jun., and Handy, *A.*, magneto-electrolytic potentials, A., 846.
- Holmes, *F. B.* See Cooper, *C.*
- Holmes, *F. E.*, large-capacity laboratory extractor, A., 1208.
- Holmes, *H. N.*, and Anderson, *J. A.*, manufacture of silica gels, (P.), B., 403.
- Holmes, *H. N.*, and McKelvey, *J. B.*, reversal of Traube's rule of adsorption, A., 1183.
- Holmes, *J.*, [caustic] soda recovery plant [for use with waste-liquors from esparto grass digestion], B., 120.
- Holmes, *J.*, and Kingcome, *H. A.*, evaporators, (P.), B., 507.
- Holmes, *J.*, Kingcome, *H. A.*, and Jardine, *J. L.*, recovery of soda ash [from digestion of cellulose], (P.), B., 478.
- Holmes, *W. C.*, stain solubilities. III., A., 448.
- tautomerism of brilliant-cresyl-blue, A., 1029.
- Holmes, *W. C.*, and Hann, *R. M.*, reactions of basic dyes with cyclic derivatives of an acid character, A., 1403.
- Holmes, *W. C.*, and Snyder, *E. F.*, spectrophotometric determination of hydrogen-ion concentrations and of the apparent dissociation constants of indicators. V. Fast-green FCF ["*p*-hydroxyerythroglycine A"], A., 976.
- Holmes, *W. C.* See also Conn, *H. J.*, and French, *R. W.*
- Holmes & Co., Ltd., *W. C.*, Cooper, *C.*, and Henshaw, *D. M.*, apparatus for bringing liquids and gas or vapours or both gas and vapours into intimate contact, and liquid-distributing devices adapted for use therein, (P.), B., 216.
- Holmes & Co., Ltd., *W. C.* See also Cooper, *C.*, and Henshaw, *D. M.*
- Holmestead, *F. K.* See Atkinson, *H.*
- Holmgren, *T. A. F.*, resistance material, (P.), B., 199*.
- Holroyd, *R.*, and Wheeler, *R. V.*, composition of coal; oil-yielding constituents, B., 880.
- Holst, *G.*, and General Electric Co., incandescence electric lamp, (P.), B., 162.
- Holt, *A.*, chemical industries and Merseyside, B., 175.
- Holt, *D. A.* See Papish, *J.*
- Holt, *E. V.*, and Harwood, *H. F.*, separation of manganese in rock analysis, A., 38.
- Holt, *S. L.* See Heilbron, *I. M.*
- Holt, *T. W.* See Brandwood, *J.*
- Holt, *W. L.* See Tener, *R. F.*
- Holtappel, *K. J.*, determination of citronella in Java citronella oil, B., 587.
- Holter, *H.* See Späth, *E.*
- Holtmann, *A.* See Freiburger, *M.*
- Holtmeier, *H.* See Weinland, *R.*
- Holton, *W. B.*, and Hopkins, *B. S.*, rare earths. XXV. Examination for certain rare-earth materials for element 72 [hafnium], A., 349.
- Holtmark, *J.*, theory of scattering of slow electrons, A., 567.
- theory of the Ramsauer effect, A., 1076.
- Holtz, *J. C.* See Huff, *W. J.*
- Holtzhausen, *P.* See Maurer, *F.*
- Holtzmann, *O.*, diffusion of cathode rays, of 100 volts velocity, in gaseous media, A., 819.
- Holweck, *F.*, production and absorption of the *K*-rays of aluminium, A., 693.
- interpretation in terms of energy of the action of *K*-rays of aluminium on micro-organisms, A., 798.
- Holwerda, *B. J.*, viscosity and cataphoretic potential of casein sols, A., 364.
- accurate determination of the protein content of butter, B., 241.
- Holzappel, *A. C.*, protecting the interior of an oil-cracking retort, (P.), B., 560.
- Holzappel, *E.* See Braunsdorf, *O.*, and I. G. Farbenind. A.-G.
- Holzer, *H.* See Klein, *O.*
- Holzverkohlungs-Industrie Akt.-Ges., concentration of volatile aliphatic acids, (P.), B., 82.
- concentration of raw pyroigneous acid, (P.), B., 82.
- chlorination of acetylene, (P.), B., 844.
- manufacture of concentrated acetic acid (or a mixture of acetic acid and acetic anhydride) with simultaneous production of unsaturated hydrocarbons, (P.), B., 886.

- Holzverkohlungs-Industrie Akt.-Ges., and Fuchs, O., oxidation of ethyl alcohol, (P.), B., 703.
- Holzverkohlungs-Industrie Akt.-Ges., and Seib, J., manufacture of white lead, (P.), B., 531.
- Holzverkohlungs-Industrie Akt.-Ges. See also Hochstetter, H. von, Krause, E., Retze, E. von, and Roka, K.
- Homerberg, V. O., and Shaw, D. N., treating copper alloys [brass and Muntz metal], (P.), B., 789.
- Homès, G., variation with time of surface tension of plasma, A., 832.
- Homma, J., action of insulin on glycolysis and on carbohydrate metabolism of muscle, A., 90.
- Homma, J., and Issiki, T., lipin metabolism in the transplanted tumour, A., 441.
- Honcamp, F., Schramm, W., and Wiessmann, H., chemical composition and nutritive value of yellow and white oats, B., 688.
- Honda, K., source of magnetism due to atomic structure, A., 454.
origin of magnetism based on the structure of atoms, A., 568.
theory of steel hardening, B., 369.
manufacture of sound ingot and other metal castings, (P.), B., 757.
- Honda, K., Masumoto, H., and Kaya, S., magnetisation of single crystals of iron at high temperatures, A., 823.
- Honda, K., and Miura, S., determination of the heterogeneous field in the system iron-nickel, A., 242.
- Honda, K., and Sekito, S., two kinds of martensite, A., 594.
X-ray investigation of the formation of martensite, B., 753.
- Honda, K., and Takahashi, K., quantitative measurement of the cutting power of cutlery, B., 304*.
- Honda, K., and Tamaru, K., quenching of steels in a high-temperature bath, B., 370.
- Honda, K., and Yamada, R., change in elastic constant in metals caused by cold-working, B., 713.
- Honda, T., effect of administration of flesh on the respiratory exchange of rats after preliminary treatment in different ways, in respect to the function of the liver, A., 198.
effect of administration of flesh in respect to the preliminary condition of nutrition, A., 199.
- Honda, T. See also Asher, L.
- Honegger, P. See Fellenberg, T. von.
- Honeywell, E. M. See Bills, C. E.
- Honig, P., and Nicola, P. C., determination of the degree of acidity (p_H value) of sugars, B., 765.
- Honig, P. See also Mannich, C.
- Honigl, H., diffusion phenomena of zinc and tin in steel and soft iron, B., 370.
- Honigsmann, L. See Trocknungs-, Verschmelzungs-, & Vergassungs-Ges.m.b.H.
- Hooley, W. C. See New Jersey Zinc Co.
- Hooft, F. V., organic peroxides as bleaching agents: application to oils and fats, B., 613.
- Hooft, F. V., and De Leeuw, F. J. G., critical study of some methods used in flour colorimetry, B., 909.
- Hooft, G. O. 't, sensitisation of chrome gelatin [photographic plates] to orange and red, B., 769.
- Hoog, A. See De Jong, W. F.
- Hoogeveen, A. P. J., derivatives of *n*-hexylamine with chlorodinitro- and chlorotrinitro-naphthalenes, A., 164.
- Hooghoudt, S. B. See Lifschitz, I.
- Hooker, H. D. See Anderson, A. G.
- Hooker Electrochem. Co. See Lyon, C. E.
- Hooley, L. J., Thomas, J., and Scottish Dyes, Ltd., production of intermediates and [wool] dyes, (P.), B., 704.
- Hoover, C. P., Hansley, V. L., and Sheely, C. Q., zeolite softening of lime-treated water at Columbus, Ohio, Water Softening and Purification Works, B., 876.
- Hopf, M., determination of carbamide in urine, A., 789.
- Hopfield, R., and Metallisor Berlin Akt.-Ges., preventing scoriification of fire-bars, grate surfaces, etc., (P.), B., 338*.
- Hopfer, R., metal-spraying process and the prevention of corrosion, B., 526.
- Hopfield, J. J., unclassified lines of oxygen in the ultra-violet, A., 1296.
absorption spectra in the extreme ultra-violet, A., 1308.
- Hopfield, J. J., and Birge, R. T., ultra-violet absorption and emission spectra of carbon monoxide, A., 1307.
- Hopfield, J. J. See also Birge, R. T.
- Hopkins, B. S. See Boss, A. E., and Holton, W. B.
- Hopkins, E. S., effect of slightly alkaline tap water on spawn and eggs of trout and perch, B., 350.
- Hopkins, H. H. See Burke, C. E.
- Hopkins, R. H., selective fermentation of dextrose and laevulose by brewer's yeast, A., 1158.
water content of yeast cells in suspension in brewery worts, B., 170.
- Hopkinson, E., Gibbons, W. A., and Revere Rubber Co., treatment of water solutions of rubber, (P.), B., 204*.
- Hoppe, G. See Herzberg, W.
- Hopper, I. V., preparation of *p*-nitrobenzyl bromide, A., 403.
 δ -substituted semicarbazides, A., 515.
- Hopper, I. V., and Wilson, F. J., resolution of benzoin, A., 1247.
- Hoppe-Seyler, F. A., occurrence and detection of arginine in cystinuria, A., 321.
identity of "kanirin" with trimethylamine oxide, A., 664.
- Hoppe-Seyler, F. A., and Schmidt, Werner, occurrence of trimethylamine oxide [in fish muscle], A., 195.
 γ -butyrobetaine [in fish muscle], A., 195.
chloroaurates of nucleic bases, A., 653.
- Hopwood, J. M. See Hall, R. E.
- Horch, R., and Schulteis, influence of various yeast-races and temperatures on fermentation and quality of beer, B., 871.
- Hori, T., variation of the intensity of the lines of the mercury spectrum excited by different types of discharge, A., 930.
- Horiha, S., and Baba, H., determination of vapour pressures of sodium and potassium chlorides, A., 354.
- Horiha, S., and Ichikawa, T., photochemical union of chlorine and hydrogen. I, A., 253.
- Horiha, S., and Inouye, R., determination of the vapour pressure of arsenic tri-iodide, A., 227.
- Horiha, S., and Kondo, T., Weigert effect as a more general characteristic of certain colloidal systems. I, A., 238.
- Horiha, S., and Ri, T., decomposition of carbon monoxide in presence of reduced nickel, A., 376.
- Horii, S., stencil sheet, (P.), B., 364*, 520, 706.
- Horioka, H. See Nukiyama, H.
- Horiuchi, K. See Okada, S.
- Horiuchi, R., transformation of aliphatic terpenes into monocyclic terpenes; synthesis of menthol, A., 1018.
- Horix, C., preparation of a beverage, (P.), B., 767.
- Horn, A., production of clear [lubricating] oils soluble in water, (P.), B., 222.
- Horn, O. See Fuchs, W.
- Horn, O. P., and Gardenier, C. B., explosibility of anesthetics, A., 1332.
- Hornsey, J. W., manufacture of steel, (P.), B., 527.
apparatus for reducing oxides of metals [copper, lead, or zinc], (P.), B., 931.
- Hornsey, J. W., and Coley, H. E., production of iron from iron ores, (P.), B., 269.
- Hornung, G. See Tausz, J.
- Horovitz-Vlassova, L. M., sanitary evaluation of flesh foods, B., 689.
- Horowitz, G. E. See Finkelstein, B. N.
- Horrall, O. H., and Buchman, T. E., hæmocidal properties of blood-serum with reference to pernicious anæmia, A., 666.
- Horsfall, J. L., organic mercury compounds for the control of insects in stored seeds, B., 622.
- Horsfall, R. S., Lawrie, L. G., Hill, J., and British Dyestuffs Corporation, Ltd., dyeing of cellulose esters or ethers, (P.), B., 296*.
- Horsfall, R. S. See also British Dyestuffs Corporation, Ltd.
- Horsfield, B. T., and Aluminum Co. of America, manufacture of refractory heat-insulating material, (P.), B., 749*.
- Horsfield, B. T. See also Aluminum Co. of America.
- Horsley, G. F. See Synthetic Ammonia & Nitrates, Ltd.
- Horst, (Miss) van der. See Keesom, W. H.
- Horst, E. C., preparation of hop extract, (P.), B., 543.
- Horst, H. D. von der. See Günther, P.
- Horst, W. P. ter, and Rubber Service Laboratories Co., manufacture of vulcanised rubber [accelerators], (P.), B., 681.
- Horsters, H. See Brugsch, T.
- Horton, L. See Bone, W. A.
- Horwath, A. A., and Little, R. B., composition of the blood of animals under pathological conditions. I. Broncho-pneumonia in cows, A., 1273.
- Horwitz, A., apparatus for sulphonating oils, (P.), B., 613.
- Hosking, J. R., essential oil from *Agathis australis*, B., 426.

- Hosking, J. R., and Short, W. F., essential oil of *Podocarpus ferrugineus*, B., 691.
- Hothersall, A. W. See Macnaughtan, D. J.
- Hott, J. L., recuperative furnace, (P.), B., 248.
- Hotta, S. See Nomura, H.
- Hottes, C. F., and Hafenrichter, A. L., constant-rate aspirator, A., 1209.
- Hottinger, A., influence of ultra-violet light on the vitamin-C content of milk, A., 556.
mode of action of irradiated ergosterol in rickets, A., 915.
- Hottinger, A. F., and Chicago Crucible Co., manufacture of refractory articles [crucibles], (P.), B., 334.
- Hou, C. L., Ni, T. G., and Lim, R. K. S., chloride metabolism of the stomach, A., 1277.
- Houben, J., [nuclear condensation of phenols with nitriles], A., 998.
- Houben, J., and Fischer, W., photochemical studies. I., A., 1340.
- Houck, R. C., dyeing; silks and dyestuffs, B., 259.
- Houdijk, A. C., wet separation of earth, earthy materials, ores, etc., (P.), B., 269.
- Hough, A., and Duriron Co., Inc., manufacture of nitric acid, (P.), B., 90.
- Houghton, H. W., and Safety Fumigant Co., fumigant material, (P.), B., 350.
- Houlbrooke, A. See Hilditch, T. P.
- Houques-Fourcade, C. A., material for roofing, for paving streets, etc.; roofing material, (P.), B., 750.
manufacture of material resembling rubber, (P.), B., 762.
- Housekeeper, W. G., and Western Electric Co., Inc., removal of enamel from electrical conductors, (P.), B., 129.
- Houseman, C. R., and Air Reduction Co., heat-interchange device, (P.), B., 628*.
- Houssay, B. A., and Mazzocco, P., changes in the glycogen content of the heart and brain, and the lactic acid and lactacidogen content of the muscle in adrenalectomised rats, A., 799.
- Houston, D. M., nickel changes properties of grey cast iron, B., 17.
- Houston, W. V., spectroscopic determination of e/m , A., 3.
electron emission of cold metals, A., 467.
electrical conduction from the viewpoint of wave mechanics, A., 695.
fine structure of the helium arc spectrum, A., 1297.
- Houston, W. V., and Moore, G., transmission and reflexion of gold and silver films, A., 576.
- Houtz, R. L. See Hall, T.
- Hove, T. van, direct introduction of substituents in aromatic mercaptans, A., 53*, 517*.
- Hovey, R. W., making paper pulp, (P.), B., 782.
- Hovey, W. C. See Reid, H. S.
- Howard, A. See Dann, A. T.
- Howard, C. S. See Collins, W. D.
- Howard, F. A., Loomis, N. E., and Standard Oil Development Co., heat-conversion of hydrocarbon oils, (P.), B., 471.
- Howard, F. A., and Standard Development Co., distillation of hydrocarbon oils, (P.), B., 7.
- Howard, F. A., and Standard Oil Development Co., pyrogenesis of petroleum products, (P.), B., 701.
[cracking] treatment of oils, (P.), B., 702.
cracking of hydrocarbons, (P.), B., 884.
- Howard, F. A. See also Clark, E. M.
- Howard, H., and Grasselli Chemical Co., production of a gas of uniform sulphur dioxide content, (P.), B., 14.
manufacture of ammonium chloride, (P.), B., 191.
manufacture of sodium hydrosulphide, (P.), B., 641.
preparation of sodium phosphate, (P.), B., 710.
- Howard, H. C., jun. See Marks, B. M.
- Howard, J., separation of liquids or gases, (P.), B., 431.
- Howard, L. E., Potts, A. D., and Simonds Saw & Steel Co., producing permanent magnets, (P.), B., 676.
- Howard, L. O., peculiar results in hardness tests of lead-antimony alloys, A., 829.
- Howard, M. See Brown, W. H., and Reimer, M.
- Howard, N. J., modern aspects of chlorination of water, B., 503.
- Howard, W. H., recovery of sulphur [from furnace gases], (P.), B., 918.
- Howard, W. R., and Universal Oil Products Co., cracking of [petroleum] oil, (P.), B., 633.
- Howard, Ltd., J. & F., and Rowland, G. E., apparatus for diffusing sugar beet or similar substances, (P.), B., 207.
- Howards & Sons, Ltd., and Blagden, J. W., manufacture of crystalline menthol, (P.), B., 837.
- Howe, D. W., Pickett, E. R., McBean, D. M., and Beech-Nut Packing Co., cleaning of chicke and similar gums, (P.), B., 383.
- Howe, G. H., and General Electric Co., [anti-corrosive] treatment of metals, (P.), B., 161.
treatment of metals; [coating wires with aluminium], (P.), B., 610.
- Howe, H. E., manufacture of [solid] carbon dioxide, B., 856.
- Howe, J. L., occurrence of the platinum metals, A., 42.
- Howe, W. L., and Hudson, C. J., porosity and permeability of porous bodies, B., 39.
- Howell, O. R., molecular structure in solution. III. Electrical conductivities of aqueous solutions of cobalt chloride and hydrochloric acid; prediction of crystal structure, A., 22.
- Howell, S. P. See Gardner, E. D.
- Howell, W. H., heparin, A., 318.
- Howell, W. H. See also Rask, E. N.
- Howell, W. H., jun., cooking of wood to form chemical paper stock, (P.), B., 478.
- Howes, H. W. See Cousen, A., and English, S.
- Howlett, L. See McLennan, J. C.
- Hoyer, K. See Hein, F.
- Hoyle, J. C., serum-calcium. I. Oral administration, A., 438.
- Hoyle, J. C. See also Havard, R. E.
- Hoyois, L., washing of coal, ores, etc., (P.), B., 114, 218.
treatment of coals, ores, etc. mainly composed of particles of small sizes, (P.), B., 593.
- Hoyt, F. C., polarisation of the resonance radiation from degenerate systems, A., 1169.
- Hoyt, L. F., determination of neutral fat in soaps, B., 273.
fumigation tests with ethylene dichloride-carbon tetrachloride mixture, B., 504, 798.
comparative tests with certain fumigants, B., 732.
- Hoyt, L. F. See also Handy, J. A.
- Hoz, H., Bernoulli, W., Link, A., and Geigy, J. R., Société Anonyme, dyeing and printing of acetylcellulose, (P.), B., 12*.
- Hrach, V. F. See Krauz, C. K.
- Hromatka, O. See Späth, E.
- Hrubetz, M. C. See Stimson, B. B.
- Hrynakovski, C., relation of the surface of crystals to their mass and volume, A., 108.
- Hsü, K. L., antiscorbutic vitamin value of some Peking fruits, A., 556.
- Hsueh, C. M., and Marvel, C. S., optically active hypnotics, A., 529.
- Hubáček, J. See Sticha, K.
- Hubbald, W., and Pyman, F. L., glyoxaline-4(5)-formaldehyde, A., 304.
- Hubbard, C. C. See Goldman, M. H.
- Hubbard, J. C., and Loomis, A. L., velocity of sound in liquids at high frequencies by the sonic interferometer, A., 828.
- Hubbell, R. B., and Mendel, L. B., zinc and normal nutrition, A., 87.
- Huber, A. See Rupe, H.
- Huber, F. W., preparation of table salt, (P.), B., 191.
- Huber, H. V., Felton, T. M., and Vitro Manufacturing Co., colour composition for vitreous enamel, (P.), B., 749.
- Huber, J. F. See Bodey, M. G.
- Huber, J. V., jun., stabilisation of fats, oils, and waxes, (P.), B., 865.
- Huber, L. X. See James, T. R.
- Hubert, E., cholesterol content of blood-serum after irradiation with X-rays, A., 1152.
- Hubmann, O. See Metallbank & Metallurgische Ges. A.-G.
- Huckett, H. C., aphiscidal properties of tobacco dust, B., 311.
- Hudson, C. J. See Howe, W. L.
- Hudson, C. S., α -methylmannoside, A., 399.
- Hudson, C. S., and Standard Development Co., deodorisation of isopropyl alcohol, (P.), B., 255.
- Hudson, C. S. See also La Forge, F. B., and Phelps, F. P.
- Hudson, E. P. See Blackett, P. M. S.
- Hudson, F., the "by difference" method of determining acid absorption by pelt in one-bath chrome-tanning experiments, B., 166.
- Hudson, H. See Sheppard, S. E.
- Hudson, J. C., application of electrical resistance measurements to the study of atmospheric corrosion of metals, B., 488.
- Hudson, R. P., rapid determination of silica, alumina, lime, and magnesia in low-manganese iron ores, B., 301.

- Hudson, W. E. See Dean, R. S.
- Hübner, K. See Barrenscheen, H. K.
- Hübscher, J., examination of extracts, etc. containing fat and mucilage, B., 912.
- Hückel, W., steric hindrance, A., 987.
present position of the strain theory, A., 1173.
- Hülsbruch, W. See Verein. Stahlwerke A.-G.
- Hümmerich, F. See I. G. Farbenind. A.-G.
- Huerre, R., preparation, purification, and analysis of pyro-ligneous oils, B., 289.
- Huesselmann, B. See Fulmer, E. I.
- Huessy, W., compound of kerosene and alcohol, (P.), B., 843.
- Hueter, E. See Metallbank & Metallurgische Ges. A.-G.
- Hütter, C., hot centrifuge, B., 801.
- Hüttig, G. F., and Kükenthal, H., hydrogen. VII. Density, refractivity, and absorption of light of concentrated aqueous solutions of hydrogen halides, A., 470.
- Hüttig, G. F., and Wittgenstein, E. von, system aluminium oxide-water, A., 842.
- Hüttner, R. See Drucker, C.
- Huey, H. I. See Lilienfeld, L.
- Huf, H. F. See Geniesse, J. C.
- Huff, W. J., and Holtz, J. C., origin and decomposition of carbon disulphide in gas-making; the carbon-sulphur complex, B., 77.
- Hufferd, R. W., [detection of zinc and calcium], A., 386.
- Huffman, H. M. See Parks, G. S.
- Huffmann, M. See Gorham, F. D.
- Hufschmidt, C., water-softening filters, and regeneration and purification of same, (P.), B., 504.
- Huggett, J., and Chaudron, G., thermomagnetic study of some iron minerals, A., 503.
thermomagnetic study of magnetic iron sesquioxide, A., 841.
- Huggler, K. See Zetsche, F.
- Hugh, W. E. See Dickins, A. H.
- Hughes, D. R., and Bevan, R. C., catalysis by nickel of the union of hydrogen and oxygen, A., 27.
- Hughes, E. B. See Lampitt, L. H.
- Hughes, J. See Synthetic Ammonia & Nitrates, Ltd.
- Hughes, J. S. See Hansford, J.
- Hughes, P. A. See De la Concha, T.
- Hughes, W. K. See Davies, A. R.
- Hughes, W. S., Haber's glass cell, A., 370.
- Hughes, W. S. See also Coleman, S. P.
- Hughes & Treleaven, Ltd. See Baxendale, J.
- Hughes-Jones, J. T., impregnation of timber, (P.), B., 335.
- Hugill, W., and Rees, W. J., silica bricks made without added bond, B., 604.
- Hugoniot, L. See Bouvier, M. E.
- Hughes, wines from grapes attacked by *Eudemis*, B., 240.
- Huhn, A. G., apparatus for drying or cooling material, (P.), B., 696.
- Huillard, A., concentration of liquids, (P.), B., 176.
- Hujama, S. See Ishida, Y.
- Hukumoto, Y. See Takahashi, Y.
- Hulburt, E. O., ionisation in the upper atmosphere of the earth, A., 811.
ultra-violet, visible, and infra-red reflectivities of snow, sand, and other substances, A., 1072.
penetration of ultra-violet light into pure water and sea-water, A., 1073.
intensities of the lines in the spectrum of mercury, A., 1296.
- Hulett, G. A. See Gardiner, W. C.
- Hulings, C. M. See Buchanan, G. H.
- Hull, L. J. See Mulligan, P. C.
- Hult, G. See Seth, R. von.
- Hulthén, E., "non-combination" part systems in band spectra, A., 216.
band spectrum of mercury hydride, A., 1075.
- Hultman, E. W., means for testing for carbon monoxide, (P.), B., 894.
- Hume, E. M., Lucas, N. S., and Smith, Hannah H., absorption of vitamin-D from the skin, A., 92.
- Hume, E. M., and Smith, Hannah H., evaluation of vitamin-A by means of the growth of rats, A., 555.
- Hume, E. M., Smith, Hannah H., and Maclean, (Mrs.) I. S., examination of yeast-fat for the presence of vitamins-A and -D before irradiation and of vitamin-D after irradiation, A., 332.
examination of irradiated zymosterol for the presence of vitamin-D, A., 1059.
- Hume, J. See Topley, B.
- Hume, W. R., crushing or pulverising mills, (P.), B., 506.
- Hume, W. R., and Hume Steel, Ltd., application of protective coatings to metal pipes, etc. (P.), B., 413.
- Hume-Rothery, W., the metallic state, A., 111.
classification of metallic substances, A., 222.
system sodium-tin, A., 594.
thermal and microscopical investigation of alloys of reactive metals, B., 754.
- Hume Steel, Ltd. See Hume, W. R.
- Humfeld, H. See Erdman, L. W.
- Hummel, C. See Langguth, W.
- Hummel, G. See Fischer, Hans.
- Hummelink, M. G. W., purification of colloidal liquids, emulsions, etc., (P.), B., 628.
- Humphrey, C. W., McKittrick, D. S., Humphrey, C. W., and Lea, H. I., purification and solidification of aluminium chloride, (P.), B., 123.
- Humphrey, H. A. See Synthetic Ammonia & Nitrates, Ltd.
- Humphrey, W. G. See Chattaway, F. D.
- Humphreys, C. J. See Goudsmit, S., and Sawyer, R. A.
- Humphreys, R. E., and Standard Oil Co., distillation of oils, (P.), B., 7.
- Humphreys & Glasgow, Ltd., and Chrisman, C. S., apparatus for making carburetted water-gas, (P.), B., 395.
manufacture of mixed water-gas and distillation gas from fuels of volatile content, (P.), B., 395, 513.
- Humphreys & Glasgow, Ltd., Fulweiler, W. H., and Jordan, C. W., purification of illuminating gas, (P.), B., 359*.
- Humphreys & Glasgow, Ltd., and Société de Construction d'Appareils pour Gaz à l'Eau et Gaz Industriels, manufacture of producer gas and water-gas, (P.), B., 560.
- Humphries, C. H., and Metals Protection Corporation, production of corrosion-resisting coatings on iron and steel products, (P.), B., 57.
- Humphries, C. H. See also Metals Protection Corporation.
- Hund, F., theory of molecular spectra, A., 216.
quantum mechanics and chemical combination, A., 1303.
- Hundley, J. L., relative intensities of positive rays from the isotopes of lithium, A., 103.
- Hunn, J. V., and Brown, G. G., gaseous explosions. VI. Flame and pressure propagation, A., 1331.
- Hunneman, R. D., and Standard Oil Co., distillation of hydrocarbon oils, (P.), B., 702.
- Hunsberger, J. N., jun. See Grimditch, W. H.
- Hunt, C. H., complex nature of vitamin-B as found in wheat and maize, A., 926.
complex nature of vitamin-B. I. Evidence for a third factor, A., 1405.
influence of fertilisers on the vitamin-B content of wheat, B., 380.
- Hunt, C. H., and Krauss, W. E., antineuritic and antipellagric potency of cow's milk, A., 1405.
- Hunt, H. See May, C. E.
- Hunt, S. B. See Mann, M. D., jun.
- Hunter, A. See Geddes, W. F.
- Hunter, A. C., and Harrison, C. W., bacteriology and chemistry of oysters, B., 834.
- Hunter, E., velocity of acid hydrolysis of cotton cellulose by hydrochloric acid, alone, and in the presence of alkali chloride, A., 1334.
- Hunter, E. See also Allmand, A. J.
- Hunter, G., test for ergothioneine and its determination in simple solution and in blood-filtrates, A., 316.
- Hunter, J. See McGougan, J.
- Hunter, J. E. See Hogan, A. G.
- Hunter, L., and Barnes, R. S., halogen derivatives of *o*- and *p*-azophenol, A., 1128.
preparation of some halogenoaminophenols. I. Mixed tetra-halogen derivatives of *o*-azophenol. II. Halogen derivatives of *p*-hydroxyazobenzene, A., 1129.
- Hunter, T. G. See Brame, J. S. S.
- Huntress, E. H., [preparation of] diphenic acid, A., 413.
- Huntsinger, M. E. See McClure, C. W.
- Hupe, R., and Schramme, A. [with Windaus, A.], quinoline derivatives, A., 1140.
- Huppert, E., Swiatkowski, H., and Zellner, J., comparative plant chemistry. XX. Latex-bearing plants. III, A., 93.
- Hurd, C. D., and Webb, C. N., [preparation of] *p*-dimethylamino-benzophenone, A., 417.

Hurez, E., and Virely, P. P., distillation of solid fuel in small pieces, (P.), B., 180.

Hurlbut, F. A. See United Glass Bottle Manuf., Ltd.

Hurlbutt, F., rotary [cement, etc.] kiln, (P.), B., 672.

Hurrell, G. C., emulsification apparatus, (P.), B., 320, 339*.

Hurst, J. E. See Newton Chambers & Co., Ltd.

Hurwitz, G. J. See Carothers, W. H.

Hurxthal, L. M. See Dill, D. B.

Husa, L. M. See Husa, W. J.

Husa, W. J., and Husa, L. M., effect of various compounds on rate of development of rancidity in fats and oils, B., 339.

Husain, S., and Partington, J. R., perphosphoric acids and perphosphates, A., 604.

Huselson, W. W. See Csanyi, H.

Huston, R. C., and Lightbody, H. D., biochemical relationships of phenols. I. Quinol, A., 557.

Huston, R. C., Lightbody, H. D., and Ball, C. D., jun., biochemical relationships of phenols. II. Effect of quinol on vitamin-A content of stored oils, A., 1405.

Hutchison, E., mol. heat and entropy of hydrogen chloride calculated from band spectra data, A., 941.

Hutchison, W. K., and Hinshelwood, C. N., relative stability of nitrous oxide and ammonia in the electric discharge, A., 30.

Hutchman, J. E. See Evans, W. L.

Hutzenlaub, E., and Lechler, P., manufacture of a bituminous product, (P.), B., 405.

Huxley, J. S. See Belehradek, J.

Huxley, L. G. H., ionisation by collision, A., 3.

corona discharge in helium and neon, A., 567.

Huyser, H. W. See Romburgh, P. van, and Ruzicka, L.

Huzella, T., preparation of collodion tubes and membranes, A., 563.

Hyatt, J. M., secondary electron emission produced by positive caesium ions, A., 1299.

Hybinette, N. V., [aluminium] alloy; heat-resisting alloy and structure, (P.), B., 610.

production of nickel alloys, (P.), B., 645.

Hycolite Liquid Wallpaper Manufacturing Co., Ltd. See Heyl, G. E.

Hyde, A. F. See Simonds, F. M.

Hyde, J. F., and Adams, R., possible isomerism of analogues of resolvable diphenyl compounds, A., 1234.

Hyde, J. F., Browning, E., and Adams, R., synthetic homologues of *dl*-ephedrine, A., 1143.

Hyde, J. F. See also Clark, G. L.

Hyde, R. W., and Dwight & Lloyd Metallurgical Co., treatment of mercury-bearing ores, (P.), B., 20.

treatment of fines of earthy materials, (P.), B., 893.

Hyde, R. W., and Dwight & Lloyd Sintering Co., Inc., treatment of aluminium-bearing ores, (P.), B., 271.

Hydraulic Press Manufacturing Co. See Darling, E. R.

Hydrocarbon Aktien-Gesellschaft für Chemische Produkte, splitting of acetylene, (P.), B., 701.

Hydrocarbon Aktien-Gesellschaft für Chemische Produkte. See also Burger, P.

Hydrocarbon Refining Process Co., Inc. See McMichael, P.

Hydrocarbures et Dérivés, treatment of hydrocarbons, (P.), B., 807.

Hylleraas, E. A., fundamental state of the helium atom, A., 698.

Hyman, M., rapid method of drying laboratory preparations, A., 501.

burette-reading device, A., 501.

Hymas, F. C. See Middleton, G.

Hynd, A. See Herring, P. T.

Hyndman, D. See Hickman, K.

Hynson, Westcott, and Dunning. See Dunning, F.

Hyslop, J. F., opal glass; crystal growth and impact brittleness, B., 192.

Hyslop, J. F., Proctor, R. F., and Biggs, H. C., expansion and tensile tests on glass-house refractories, B., 928.

Hyslop, J. F., and Rooksby, H. P., effect of heat on the crystalline break-up of kaolin, B., 605.

Hyslop, J. F. See also General Electric Co.

Hyslop, J. L., carbonisation in vertical retorts, B., 735.

Hyten, C. D., [preparation of clay for] pottery, (P.), B., 265.

Hyuga, A., hydrogen-ion comparator, (P.), B., 288.

I.

I. G. Farbenind. A.-G., reduction of aromatic nitro-compounds [production of iron oxide pigment], (P.), B., 8.

manufacture of new azo-dyes, (P.), B., 8, 183.

manufacture of a yellow azo-dye [for acetate silk], (P.), B., 8.

manufacture of monodiazocompounds of 1:4-diaminoanthraquinomono- or -di-sulphonic acids, (P.), B., 8.

manufacture of new vat dyes of the anthraquinone series, (P.), B., 9, 362.

manufacture of vat dyes of the anthraquinone series, (P.), B., 9, 225, 781.

manufacture of hydrocyanic acid, (P.), B., 13.

maintaining the stability of dibasic calcium hypochlorite, (P.), B., 13.

separation of phosphorus from gases containing phosphorus, (P.), B., 14.

manufacture of 4-hydroxy-3-acetamidoarylsarbinic acids, (P.), B., 37.

manufacture of 1-diazoanthraquinone-2-carboxylic acids, (P.), B., 45.

manufacture of a greenish-yellow azo-dye, (P.), B., 46.

manufacture of triarylmethane dyes, (P.), B., 46, 475.

manufacture of hollow bodies from quartz and similar materials, (P.), B., 54.

treatment of articles with soaps, (P.), B., 60.

soap preparations and treatment of articles therewith, (P.), B., 60.

manufacture of mixed fertilisers, (P.), B., 64.

manufacture of bodies of photographic desensitising action, (P.), B., 69.

photographic emulsions, (P.), B., 69.

production of fuel gases, (P.), B., 79, 436.

manufacture of liquid or other hydrocarbons or derivatives thereof from carbonaceous materials, (P.), B., 80, 221.

catalytic production of hydrocarbons from oxides of carbon and hydrogen, (P.), B., 81.

production of calcium formaldehyde-sulphoxylate, (P.), B., 82.

manufacture of aqueous emulsions and suspensions of liquid or solid substances insoluble in water, (P.), B., 83.

manufacture of new [acid] dyes of the anthracene series, (P.), B., 83.

treatment of fibres or fibrous materials with aqueous liquids, (P.), B., 85.

dyeing of furs, hair, feathers, etc., (P.), B., 86.

dyeing of acetate silk, (P.), B., 86, 601.

extraction and drying of inorganic jellies [gels], (P.), B., 90.

extraction of carbon dioxide from gaseous mixtures, (P.), B., 91, 262.

recovery of sulphur from solutions of ammonium polysulphides, (P.), B., 91.

reduction of iron ores, (P.), B., 95.

manufacture of electromagnetic cores, (P.), B., 97.

manufacture of photographic plates or films, (P.), B., 108.

apparatus for recovering organic vapours from air, (P.), B., 111.

drying of gases and vapours by means of active adsorbent material, (P.), B., 112.

manufacture of unsymmetrically substituted diaminopropanols [β -hydroxypropylenediamines], (P.), B., 117.

dyeing and printing cellulose esters and ethers, (P.), B., 121.

manufacture of anhydrous chlorides and hydrogen chloride, (P.), B., 123.

manufacture of pure iron, (P.), B., 127.

treatment of oat seed to destroy smut spores, (P.), B., 136.

manufacture of β -amino- β' -dialkylaminoisopropyl alcohols, (P.), B., 140.

apparatus for stirring and mixing, (P.), B., 143.

oxidation of hydrogen sulphide contained in industrial [illuminating] gases to sulphur, (P.), B., 149.

recovery of dehydrogenation products, (P.), B., 151.

manufacture of aromatic oxamic acid halides, (P.), B., 151.

manufacture of isatin derivatives and of indigoid dyes therefrom, (P.), B., 151.

compositions of matter suitable as emulsifying agents, (P.), B., 152.

preparation of emulsifying agents, (P.), B., 152, 887.

manufacture of azo-dyes, (P.), B., 152, 226, 442, 704, 741, 849, 888.

manufacture of mordant dyes, (P.), B., 153.

I. G. Farbenind. A.-G., manufacture of artificial silk, bands, ribbons, etc., (P.), B., 154.
 opening-up of materials containing cellulose, (P.), B., 154, 364.
 manufacture of nitrocellulose (or cellulose acetate) solutions and plastics, (P.), B., 155.
 manufacture of cellulose nitrate solutions and plastics, (P.), B., 155.
 production of combined shades from sulphur dyes and ice-colours on vegetable fibre, (P.), B., 156.
 manufacture of condensation products of carbamide and its derivatives and formaldehyde, (P.), B., 165, 532.
 manufacture of compositions of matter containing caoutchouc, (P.), B., 165.
 manufacture of solutions of gelatin in organic solvents, (P.), B., 167.
 [valve device for] supplying pulverulent fuels to internal-combustion engines, (P.), B., 182.
 manufacture of azo-dyes [for wool], (P.), B., 183.
 manufacture of monoazo-dyes capable of being chromed, (P.), B., 183.
 fixation of dyes, (P.), B., 189.
 production of anhydrous metal chlorides, (P.), B., 191.
 [simultaneous] production of chromates [and alumina], (P.), B., 191.
 activation of carbon and production of carbon disulphide, (P.), B., 192.
 extraction of clay and other argillaceous raw materials with acids, (P.), B., 193.
 treatment of titanium ores, (P.), B., 198.
 vulcanisation of rubber, (P.), B., 204.
 manufacture of tanning agents, (P.), B., 206, 617.
 manufacture of valuable liquid and other hydrocarbons and derivatives thereof by the destructive hydrogenation of mineral coal and other solid carbonaceous materials, (P.), B., 221, 291.
 purification of crude benzol, (P.), B., 221.
 manufacture of motor fuels, (P.), B., 222, 438, 739.
 catalytic decomposition of cyclic compounds, (P.), B., 224.
 manufacture of isatins and *N*-arylsulphonyl derivatives thereof, (P.), B., 224.
 manufacture of chlorine-substitution products of 1-amino-2:4-dimethylbenzene [chlorinated *m*-4-xylydines], (P.), B., 225.
 manufacture of vat dyes, (P.), B., 225, 399, 517, 598, 666, 740, 923.
 manufacture of vat dyes of the dibenzanthrone series, (P.), B., 225, 399, 635.
 manufacture of [azo-] dyes containing chromium, (P.), B., 226.
 manufacture of black copying colours, (P.), B., 226, 400.
 removal of fat from raw sheep's wool, (P.), B., 227, 600.
 moth-proofing compounds, (P.), B., 227.
 production of alkali-cellulose from sheets of cellulose impregnated with alkali solution, (P.), B., 228.
 catalytic production of hydrocyanic acid from formamide, (P.), B., 230.
 manufacture of active silica, (P.), B., 230.
 manufacture of alkali nitrates, (P.), B., 230, 670.
 manufacture of [metallic] catalysts, (P.), B., 235, 338, 452.
 manufacture of cleansing and emulsifying agents, (P.), B., 237.
 manufacture of solutions of organic compounds, (P.), B., 237.
 manufacture of condensation products of carbamide and formaldehyde, (P.), B., 237, 376, 419, 532, 762.
 means for combating animal pests, (P.), B., 240.
 products containing arsenic for combating plant pests, (P.), B., 240.
 preparation of quinoline derivatives, (P.), B., 244.
 manufacture of aromatic hydrocarbons, (P.), B., 252.
 manufacture of [crystalline] urea, (P.), B., 255.
 manufacture of cellulose esters of inorganic acids, (P.), B., 258.
 manufacture of esters of the cellulose series, (P.), B., 258.
 activation of silicic acid gel, (P.), B., 261.
 production of carbon disulphide, (P.), B., 262, 634.
 drying of gases containing nitrogen oxides, (P.), B., 262.
 manufacture of finely-divided metals from metallic carbonyls, (P.), B., 270.
 recovery of copper from liquors by precipitation, (P.), B., 270.
 manufacture of liquid and other hydrocarbons and derivatives thereof by the destructive hydrogenation of tars, mineral oils, resins, asphalts, etc., (P.), B., 291.

I. G. Farbenind. A.-G., manufacture of unsaturated gaseous hydrocarbons and mixtures of carbon monoxide and hydrogen, (P.), B., 291.
 manufacture of derivatives of acenaphthene, (P.), B., 293.
 recovery of sulphur, (P.), B., 297.
 bending of section rods of magnesium alloys, (P.), B., 305.
 metallic cores for electromagnets, etc., (P.), B., 306.
 manufacture of dihydroxyacetone, (P.), B., 313, 345.
 simultaneous absorption of ammonia and hydrogen sulphide from industrial gases, (P.), B., 325.
 manufacture of agents for emulsifying, cleansing, wetting, etc., (P.), B., 326.
 manufacture of isatins of the naphthalene series, (P.), B., 327.
 manufacture of unsaturated hydrocarbons, (P.), B., 327, 514, 779.
 manufacture of diazosulphamic acids of the cyclic series, (P.), B., 327.
 manufacture of azo-dyes and their chromium compounds, (P.), B., 328.
 manufacture of new solid diazo-salts, (P.), B., 328.
 manufacture of new indigoid dyes, (P.), B., 328.
 purification of magnesium and high-percentage magnesium alloys, (P.), B., 337.
 coloration of lacquers, (P.), B., 341.
 manufacture of cellulose ester compositions, (P.), B., 341.
 manufacture of new polyamino-compounds, (P.), B., 347.
 destructive hydrogenation of carbonaceous materials, (P.), B., 356.
 production of [unsaturated] hydrocarbons from coal, tars, mineral oils, etc., (P.), B., 356.
 production of carbon, (P.), B., 357.
 manufacture of pulverulent fuel for internal-combustion engines, (P.), B., 357.
 purification of the liquid complex hydrocarbon products of the destructive hydrogenation of carbonaceous materials, (P.), B., 359.
 manufacture of primary aliphatic and cyclic amines, (P.), B., 360.
 manufacture of new aralkylated unsaturated fats and fatty acids and their sulphonic acids, (P.), B., 360.
 manufacture of new quaternary ammonium compounds from halogen-substituted tertiary aromatic amines, (P.), B., 361.
 manufacture of *o*-aminoaldehydes and *o*-aminoketones of the anthraquinone series, (P.), B., 361.
 manufacture of *o*-aminocarboxylic acids of the anthraquinone series and substitution products thereof, (P.), B., 361.
 manufacture of polycyclic compounds containing a carbonyl group, (P.), B., 361.
 manufacture of catalysts and their application in the reduction or hydrogenation of organic compounds, (P.), B., 361.
 manufacture of carboxylic acids of acenaphthene, (P.), B., 362.
 manufacture of vat dyes of the benzanthrone series, (P.), B., 362.
 production of phosphorus and aluminous cement, (P.), B., 366.
 manufacture of acid-proof cementing compositions, (P.), B., 369.
 manufacture of lacquers, impregnating materials, etc., (P.), B., 376, 492.
 fungicides for seed grain, etc., (P.), B., 382.
 manufacture of barbituric acid saporifics, (P.), B., 389.
 photographic developers, (P.), B., 390.
 manufacture of acetaldehyde from gaseous mixtures containing acetylene, (P.), B., 397.
 manufacture of condensation products of the anthraquinone series, (P.), B., 398.
 manufacture of grey to black vat dyes, (P.), B., 399.
 manufacture of trisazo-dyes, (P.), B., 399.
 manufacture of dyes containing chromium, (P.), B., 399, 635, 704, 847, 888.
 manufacture of colour lakes, (P.), B., 400.
 production of fast dyeings [on acetate silk, pelts, hairs, feathers, etc.], (P.), B., 401.
 wide-porous active silica; active silica gels with fine capillary pores, (P.), B., 403.
 continuous transformation of oxides into chlorides by exothermic reaction, (P.), B., 403.
 recovery of reaction products from gases treated with electric arcs, (P.), B., 415.

- I. G. Farbenind. A.-G., bleaching of fatty substances of vegetable and animal origin, (P.), B., 418.
 manufacture of new complex antimony compounds, (P.), B., 427.
 continuous evaporation, distillation, or separation of difficultly distillable liquids, (P.), B., 431.
 gas producers, (P.), B., 437.
 manufacture of hydrogen or gas mixtures containing hydrogen from hydrocarbons, (P.), B., 437.
 carrying-out the catalytic oxidation of organic compounds in the gaseous or vapour state, (P.), B., 440.
 manufacture of hydrocarbons of the benzene series, (P.), B., 440.
 manufacture of dinitrohalogen-aryls [halogenodinitro-benzene-sulphonamides and -benzamides], (P.), B., 440.
 manufacture of 1-methyl-2:5:6-trichloro-3-aminobenzene-[2:5:6-trichloro-*m*-toluidine-]4-sulphonic acid, (P.), B., 440.
 manufacture of chlorine-substitution products of 1-amino-2:4-dimethylbenzene [*m*-4-xylydine], (P.), B., 440.
 manufacture of diacyl derivatives of naphthalene and acenaphthene, (P.), B., 440.
 manufacture of halogen-substituted tertiary aromatic amines, (P.), B., 441.
 manufacture of a 2:3-dichloronitro-1:4-naphthaquinone, (P.), B., 441.
 manufacture of cyclic ketones of the aromatic series [indanones], (P.), B., 441.
 manufacture of alkylpyrazolanthrones, (P.), B., 441.
 manufacture of new vat dyes and new intermediate compounds, (P.), B., 441.
 manufacture of bromo-derivatives of 1:1'-dinaphthyl-8:8'-dicarboxylic acid, (P.), B., 441.
 manufacture of an intermediate for [thioindigoid] dyes, (P.), B., 441.
 manufacture of acid wool dyes, (P.), B., 442.
 degreasing of raw wool and other textile materials, (P.), B., 443.
 treatment of animal fibres, (P.), B., 443.
 disintegration of vegetable fibre bundles, (P.), B., 444.
 electrically insulating composition of matter for the construction of partitions, etc., (P.), B., 444.
 manufacture of cellulose esters, (P.), B., 444, 853.
 manufacture of salts of the alkaline-earth metals from alkaline-earth sulphides, (P.), B., 447.
 production of aqueous solutions of organic compounds insoluble or difficultly soluble in water, (P.), B., 455.
 manufacture of white oil paints from lithopone and manufacture of lithopone, (P.), B., 456.
 production of photo-prints and photo-copies, (P.), B., 466, 549, 944.
 activation of carbon or carbonaceous material, (P.), B., 470.
 manufacture of hydrocarbons, (P.), B., 471, 702, 842.
 manufacture of valuable hydrocarbons and derivatives thereof from coal, tars, mineral oils, etc., (P.), B., 471.
 purification of montan wax, (P.), B., 473, 633, 919.
 manufacture of organic compounds [synthetic alcohols], (P.), B., 473.
 manufacture of condensation products of the naphthastyryl series, (P.), B., 475.
 dyeing of pelts, hairs, feathers, etc., (P.), B., 480, 521.
 refining of iron, (P.), B., 488.
 production of aluminium by fusion electrolysis, (P.), B., 489.
 manufacture of non-thickening paints and lacquers, (P.), B., 492.
 operation of internal-combustion engines, (P.), B., 513.
 catalytic gas reactions, (P.), B., 513.
 manufacture of the anhydrides of acetic acid, its homologues, and halogen derivatives, (P.), B., 515.
 production of aldehydes from dicarboxylic acids, (P.), B., 515.
 manufacture of diazotised monoamines of the cyclic series, (P.), B., 515.
 manufacture of new depolymerisation products from carbohydrates of high mol. wt., (P.), B., 515.
 preparations suitable for production of aqueous solutions of organic compounds insoluble or difficultly soluble in water, (P.), B., 516.
 manufacture of ketones of the anthracene series, (P.), B., 516.
 manufacture of tetranitrodianthrone and of 2:7-dinitroanthraquinone therefrom, (P.), B., 516.
- I. G. Farbenind. A.-G., manufacture of water-soluble dinitroaryl-aminodiarylamines, (P.), B., 516.
 manufacture of sulphur dyes, (P.), B., 517.
 manufacture of new azo-dyes which are insoluble in water, (P.), B., 518.
 manufacture of new mordant disazo-dyes, (P.), B., 518.
 manufacture of new [thio]indigoid dyes, (P.), B., 518.
 manufacture of cellulose esters and conversion products therefrom, (P.), B., 520.
 manufacture of artificial silk, (P.), B., 520.
 dyeing of esters and others of cellulose and its conversion products, (P.), B., 521.
 apparatus for use in the manufacture of alkali and alkaline-earth hydroxides, (P.), B., 522.
 recovery of sodium nitrate, (P.), B., 522.
 manufacture of alkali iodates, (P.), B., 523.
 electrolytic manufacture of compounds containing active oxygen, (P.), B., 523.
 production of hydrogen from methane hydrocarbons, (P.), B., 523.
 magnesium alloys for use with pistons for internal-combustion engines, (P.), B., 527.
 floor, boot, and like polishes; benzine soaps, (P.), B., 530.
 oil varnishes containing resins; cellulose ester lacquers, (P.), B., 531.
 preparation of surfaces for the reception of cellulose lacquers, (P.), B., 531.
 preservation of [rubber] latex, (P.), B., 533, 649.
 immunisation of seed grain, (P.), B., 539.
 manufacture of lactic acid and its derivatives, (P.), B., 543.
 manufacture of liquid hydrocarbons of low b. p. from olefines, (P.), B., 560.
 production of low b. p. and other hydrocarbons by the destructive hydrogenation of coals, tars, mineral oils, etc., (P.), B., 561.
 conversion of saturated hydrocarbons, in gas or vapour form, especially methane, into unsaturated hydrocarbons, (P.), B., 561.
 manufacture of vat dyes of the 2-thionaphthen-2'-indoleindigo series, (P.), B., 562.
 production of alloys for the construction or lining of apparatus, etc., (P.), B., 575.
 production of stable suspensions or pastes of coal, (P.), B., 593.
 manufacture of methylene dichloride, (P.), B., 596.
 manufacture of monocarboxylic acids, (P.), B., 596.
 manufacture of esters, (P.), B., 597.
 manufacture of naphthalene derivatives, (P.), B., 597.
 manufacture of derivatives of 2-[hydr]oxynaphthalene-3-carboxylic acid amide [2:3-hydroxynaphthamide], (P.), B., 597.
 manufacture of side-chain-bearing polynuclear aromatic compounds or their sulphonic acids, (P.), B., 597.
 nitration of anthrone and preparation of 2:7-dinitroanthraquinone, (P.), B., 598.
 manufacture of benzanthrone derivatives, (P.), B., 598.
 production of anthraquinone derivatives, (P.), B., 598.
 manufacture of hydrocarbons or oxygen derivatives thereof, (P.), B., 598.
 manufacture of dyes of the anthraquinone series, (P.), B., 598, 667.
 manufacture of new [thioindigoid] vat dyes containing sulphur, (P.), B., 599.
 manufacture of new triphenylmethane dyes, (P.), B., 599.
 manufacture of new dyes from indoline bases, (P.), B., 599.
 manufacture of dyes of the anthracene series, (P.), B., 599, 848.
 manufacture of derivatives of *N*-dihydro-1:2:1':2'-anthraquinoneazine fast to chlorine, (P.), B., 599.
 manufacture of phosphotungstomolybdenum compounds and of lakes therefrom, (P.), B., 603.
 manufacture of hydrogen sulphide or sulphides from sulphur, (P.), B., 604.
 concentration and distillation of solutions of hydrogen peroxide, (P.), B., 604.
 manufacture of acid- and lime-resisting derivatives of unsaturated fatty acids, (P.), B., 613.
 purification or separation of mixtures of fatty or mineral oils, (P.), B., 613.
 manufacture of coloured solutions of nitrocellulose, (P.), B., 614.
 hardening of plastic masses from casein, (P.), B., 615.

I. G. Farbenind. A.-G., fungicide, (P.), B., 619.

manufacture of [disinfectants from] new complex bodies containing mercury, (P.), B., 626.
 separation of gases or vapours from gaseous mixtures, (P.), B., 628.
 absorbing hydrogen sulphide or hydrogen sulphide and ammonia from gases, (P.), B., 632.
 manufacture of liquid hydrocarbons and their derivatives, particularly those of low b. p. from coal, tars, mineral oils, etc., (P.), B., 632.
 manufacture of formaldehyde, (P.), B., 634.
 manufacture of unsaturated aldehydes, (P.), B., 634.
 manufacture of thiomorpholines of the anthraquinone series, (P.), B., 634.
 manufacture of acid dyes of the anthraquinone series, (P.), B., 635.
 manufacture of condensation products derived from thionaphthen-2:3-dicarboxylic acid, (P.), B., 635.
 manufacture of 2:3-phthaloylthionaphthen and derivatives thereof, (P.), B., 635.
 manufacture of carbazolequinones, (P.), B., 635.
 manufacture of soluble cellulose esters of higher fatty acids, (P.), B., 637.
 softening paper, (P.), B., 638.
 [treatment of iron for the manufacture of] apparatus for carrying-out chemical and other processes, (P.), B., 644.
 conversion of insoluble substances [resins, dyes, etc.] into a state of aqueous solution or suspension, (P.), B., 648.
 manufacture of condensation products from urea, thiourea, or their derivatives and an alcohol or ketone, (P.), B., 648.
 manufacture of coloured rubber goods, (P.), B., 650.
 obtaining perfumes from flowers and other parts of plants, (P.), B., 654.
 set pans, etc., (P.), B., 657.
 production of gases, (P.), B., 663.
 conversion of hydrocarbons of high b. p. into compounds of lower b. p., (P.), B., 663, 738, 843.
 production of gaseous hydrocarbons from gas mixtures containing hydrogen and oxides of carbon, (P.), B., 664.
 manufacture of hydrocarbons, especially liquid hydrocarbons, (P.), B., 664.
 production of liquid hydrocarbons, (P.), B., 664.
 manufacture of liquid products by destructive hydrogenation of coal, tars, mineral oils, etc., (P.), B., 664.
 manufacture of condensation products [naphthindanones] from aromatic hydrocarbons or derivatives thereof, (P.), B., 665.
 manufacture of 1-anthraquinonyl ketones, (P.), B., 665.
 manufacture of dyes [preservation in finely-divided condition], (P.), B., 666.
 manufacture of benzantrones, (P.), B., 666.
 manufacture of [black] vat dyes, (P.), B., 667.
 manufacture of orange vat dyes of the anthraquinone series, (P.), B., 667.
 manufacture of copper compounds of substantive azo-dyes, (P.), B., 667.
 metallic compounds of *o*-hydroxyazo-dyes, (P.), B., 667.
 manufacture of coloured cellulose plastics and solutions thereof, (P.), B., 668.
 dyeing of mixed textile goods, (P.), B., 669.
 production of fast dyeings from dyes of the anthraquinone series, (P.), B., 669.
 synthetic manufacture of ammonia, (P.), B., 670.
 manufacture of chromium oxide and chromium hydroxide, (P.), B., 670.
 production of anhydrous chlorides free from oxides, (P.), B., 670.
 manufacture of highly porous, coherent lead aggregates, (P.), B., 677.
 manufacture of coloured masses or solutions thereof, (P.), B., 681.
 printing colours or inks, and hectograph compositions, inking rollers, etc., (P.), B., 681.
 eradication of plant pests, (P.), B., 684.
 manufacture of elastic, easily soluble preparations of pharmaceutical products, such as sticks, balls, etc., (P.), B., 692.
 destructive hydrogenation of coal, tars, mineral oils, etc., (P.), B., 701.
 conversion of coaly materials into valuable liquid products, (P.), B., 701.

I. G. Farbenind. A.-G., manufacture of gaseous olefines and liquid hydrocarbons from tars, mineral oils, and similar hydrocarbons, (P.), B., 702.
 bleaching of mineral oils and fats, (P.), B., 702.
 [catalytic] production of ethylene, (P.), B., 703.
 manufacture of formates, (P.), B., 703.
 manufacture of aliphatic and hydroaromatic sulphonic acids, (P.), B., 703.
 manufacture of 2:3- and 2:5-dichloro-4-acetamido-1-methylbenzene and of pure 2:3- and 2:5-dichloro-4-amino-1-methylbenzene [2:3- and 2:5-dichloro-aceto-*p*-toluidides and -toluidines], (P.), B., 704.
 production of insoluble colouring materials in a state of fine dispersion, (P.), B., 704.
 manufacture of condensation products of the benzantrone series and of vat dyes containing nitrogen, (P.), B., 704.
 production of dyeings on the fibre, (P.), B., 708.
 treatment of fibrous materials, (P.), B., 708.
 production of azo-dyes on weighted silk, (P.), B., 708.
 increasing the fastness to light of basic dyes, (P.), B., 708.
 simultaneous production of phosphorus or phosphoric acid and binding agents with latent hydraulic properties, (P.), B., 710.
 manufacture of acid-proof cements and acid-proof masonry, (P.), B., 712.
 manufacture of accumulator plates, (P.), B., 717, 760, 864.
 production of coloured brushwork lacquers, (P.), B., 719.
 preservation and treatment of latex, (P.), B., 721.
 production of a reversible paste from rubber latex, (P.), B., 721.
 destructive hydrogenation of carbonaceous materials, (P.), B., 738.
 heating carbonaceous materials, (P.), B., 738.
 treatment of hydrocarbons with electric arcs, (P.), B., 738.
 production of liquid and gaseous hydrocarbons of low b. p. from mineral and other oils, tars, etc., (P.), B., 738, 806.
 manufacture of condensation products from naphthalene or naphthalene derivatives and ethylene, (P.), B., 740.
 manufacture of new indophenols and leucoindophenols, and new dyes therefrom, (P.), B., 740*.
 protection of materials from moth, (P.), B., 743.
 manufacture of nitrocellulose, (P.), B., 744.
 dyeing of cellulose esters or ethers, (P.), B., 744.
 concentration of acetic acid solution, (P.), B., 746.
 production of solid calcium nitrate, B., 747.
 catalysts of high mechanical strength, (P.), B., 748.
 production and treatment of hydrogen peroxide and other liquids readily giving off active oxygen, (P.), B., 748.
 production of cellulose ester resin lacquers, (P.), B., 762.
 manufacture of coloured coating lacquers, (P.), B., 762.
 production of high-melting coumarone resins, (P.), B., 762.
 manufacture of mixed or complete fertilisers, (P.), B., 765.
 manufacture of high-grade fertilisers, (P.), B., 765.
 manufacture of mixed fertilisers [containing ammonium nitrate], (P.), B., 765.
 fungicides for the treatment of seeds, (P.), B., 765.
 material for combating plant pests, (P.), B., 765.
 recovering acetylene in a concentrated form from gaseous mixtures thereof with inert or reducing gases free from oxygen or oxygen-containing compounds, (P.), B., 778.
 treatment of montan wax, (P.), B., 779.
 production of low b. p. oils by thermal treatment of coals, oils, etc., (P.), B., 779.
 manufacture of aromatic amines from nitro-compounds, (P.), B., 780.
 manufacture of 1-methyl-2:5-dichloro-4-aminobenzene [2:5-dichloro-*p*-toluidine], (P.), B., 780.
 conversion of cyanonaphthalenesulphonic acids, and products of the conversion, (P.), B., 780.
 manufacture of *N*-dihydro-1:2:1':2'-anthraquinoneazine [indanthrone], (P.), B., 780.
 production of yellow dyeings on cellulose esters or ethers, (P.), B., 783.
 vulcanisation of [rubber] latex, (P.), B., 794.
 manufacture of complex [organic] metallic compounds, (P.), B., 799.
 feeding materials into high-pressure vessels, (P.), B., 802.
 dehydration of moist fuel, (P.), B., 804.
 manufacture of liquid hydrocarbons of low b. p., (P.), B., 806.
 manufacture of low b. p. oils by cracking mineral oils, tars, etc., (P.), B., 807.

- I. G. Farbenind. A.-G., protection of wool, skin materials, textiles, etc., against injurious insects, (P.), B., 810.
 supports made of cellulose derivatives for use in the manufacture of sheets of material soluble in organic solvents, (P.), B., 811.
 manufacture of calcium nitrate together with alumina and phosphorus, (P.), B., 815.
 production of nickel and/or cobalt carbonyl, (P.), B., 816.
 production of phosphorus and ferrosilicon, (P.), B., 816.
 removal of iron from minerals [bauxite, etc.], (P.), B., 820.
 precipitation [cementation] of copper, (P.), B., 820.
 production of high-grade plasters and mixed lacquers containing the same, (P.), B., 826.
 manufacture of condensation products of urea or its derivatives and formaldehydes, (P.), B., 826.
 fungicide or insecticide, (P.), B., 830.
 insecticide, (P.), B., 830.
 manufacture of new substituted 5:5'-[di]acylamino-4:4'-dihydroxyarsenobenzenes, (P.), B., 837.
 production of gases, (P.), B., 841.
 working with hydrocarbons at high temperatures, (P.), B., 843.
 manufacture of paraformaldehyde, (P.), B., 845.
 manufacture of new compounds from indene and phenols [disinfectants; resins for lacquers], (P.), B., 845.
 conservation of food, provisions, technical and pharmaceutical preparations, etc., and manufacture of disinfecting preparations, (P.), B., 845.
 manufacture of benzene and its homologues from mixtures of oxides of carbon and hydrogen, (P.), B., 845.
 production of aromatic amines, (P.), B., 846.
 manufacture of amines of the hydroaromatic aliphatic series, (P.), B., 846.
 manufacture of hydrogenated naphthastyrl, (P.), B., 846.
 manufacture of 7-acylamino-1:4-naphthaquinones, (P.), B., 846.
 manufacture of 4-nitro-2-amino-1-benzoic acid [4-nitro-anthranilic acid], (P.), B., 847.
 manufacture of derivatives and condensation products of anthraquinones [benzanthrones], (P.), B., 847.
 manufacture of new condensation products of the benzanthrone series, (P.), B., 847.
 manufacture of anthrahydroquinone [dihydroanthraquinone] derivatives, (P.), B., 847.
 manufacture of condensation products of anthraquinone, (P.), B., 848.
 manufacture of new derivatives of anthanthrone, (P.), B., 848.
 manufacture of new [yellow] vat dyes, (P.), B., 848.
 manufacture of vat dyes of the anthraquinone series, (P.), B., 848, 923.
 manufacture of indigoid vat dyes, (P.), B., 849.
 manufacture of [thioindigoid] vat dyes, (P.), B., 849.
 production of metal compounds of azo-dyes, (P.), B., 849.
 manufacture of complex metal compounds of *o*-hydroxymono-azo-dyes, (P.), B., 849.
 production of azo-dyes containing copper and chromium, (P.), B., 849.
 manufacture of viscose silk, (P.), B., 853.
 manufacture of sulphonated cellulose derivatives, (P.), B., 853.
 printing with developing dyes, especially on acetate silk, (P.), B., 854.
 production of azo-dyes on the fibre, (P.), B., 856.
 [apparatus for] dyeing textile goods, (P.), B., 856.
 manufacture of alkali and ammonium phosphate, (P.), B., 857.
 manufacture of hydrogen, (P.), B., 858.
 [silver] alloys resistant to chemical action, (P.), B., 863, 898.
 measuring the intensity of radiation, especially of sources of ultra-violet light, (P.), B., 864.
 manufacture of sulphonic acids derived from non-aromatic carboxylic acids, (P.), B., 865.
 manufacture of coloured compounds [lakes], (P.), B., 866.
 production of colouring materials, (P.), B., 866.
 preparation of derivatives of resinous phenol-aldehyde condensation products, (P.), B., 866.
 manufacture of artificial [horn-like] masses containing casein, (P.), B., 869.
 mixed fertilisers, (P.), B., 870.
 manufacturers of urethanes [of nuclear-substituted benzyl alcohols], (P.), B., 873.
 manufacture of cosmetic preparations, (P.), B., 874.
 desensitising photographic plates or films, (P.), B., 875.
- I. G. Farbenind. A.-G., process for splitting hydrocarbons, (P.), B., 884.
 halogenation of organic compounds, (P.), B., 886.
 production of aldol, (P.), B., 886.
 production of thiourea, (P.), B., 886.
 manufacture of 6-nitro-2-amino-1-benzoic [6-nitroanthranilic] acid, (P.), B., 887.
 manufacture of cyclic ketones, (P.), B., 887, 922.
 manufacture of α -anthraquinonyl ketones, (P.), B., 887.
 manufacture of aminoanthraquinones, their homologues, and substitution products from the corresponding leuco-amino-compounds, (P.), B., 887.
 manufacture of derivatives of the triarylamethane series, (P.), B., 888.
 production of non-hygroscopic solid material from sulphite-cellulose waste material, (P.), B., 889.
 printing on textile fabrics, (P.), B., 890.
 production of esters of silicic acid, (P.), B., 893.
 manufacture of hydrogen peroxide by cathodic reduction of oxygen, (P.), B., 894.
 manufacture of ceramic products with pure white shades, (P.), B., 895.
 colouring of rubber, (P.), B., 904.
 providing photographic raw film with visible reproducible inscriptions, (P.), B., 914.
 flotation processes for the treatment of coal, ores, etc., (P.), B., 918.
 oxidising paraffins, waxes, etc., (P.), B., 919.
 manufacture of viscous [mineral or tar] oils, (P.), B., 919.
 manufacture of [rubber-like] hydrocarbons of high mol. wt., (P.), B., 919.
 scavenging [and removing solid] combustion products in internal-combustion engines, (P.), B., 920.
 transformation into water-soluble form of organic substances which are *per se* insoluble in water, (P.), B., 920.
 manufacture of acetaldehyde from acetylene, (P.), B., 921.
 manufacture of compounds of the perylene series, (P.), B., 921.
 manufacture of sulphamic acids of aromatic secondary bases, (P.), B., 921.
 manufacture of phenylthioglycolic acids containing halogen and alkyl groups in the nucleus, (P.), B., 921.
 manufacture of naphthalene-1:4:5:8-tetracarboxylic acid, (P.), B., 922.
 manufacture of benzanthrones and intermediate products, (P.), B., 922.
 manufacture of benzanthronecarboxylic acids, (P.), B., 922.
 manufacture of derivatives of pyrazolanthrone, (P.), B., 922.
 manufacture of new vat dyes, (P.), B., 923.
 manufacture of sulphide dyes, (P.), B., 924.
 obtaining cellulose from ligno-cellulosic material, (P.), B., 925.
 purification of gases, (P.), B., 927.
 production of valuable coloured compounds [lakes], (P.), B., 936.
 manufacture of water-soluble anthraquinone glucosides, (P.), B., 943.
- I. G. Farbenind. A.-G., and Aktien-Gesellschaft für Anilin-Fabrikation, manufacture of thiazole derivatives of 1:4-naphthaquinone, (P.), B., 8.
 wetting of fibrous materials, (P.), B., 154.
- I. G. Farbenind. A.-G., and Badische Anilin & Soda Fabrik, fungicide for plants and seeds, (P.), B., 830.
- I. G. Farbenind. A.-G., and Bähr, H., converting hydrogen sulphide into sulphur dioxide, (P.), B., 670*.
- I. G. Farbenind. A.-G., and Ballauf, F., manufacture of indo-phenols, (P.), B., 225.
- I. G. Farbenind. A.-G., and Beck, A., refining of light metals, *e.g.*, magnesium, aluminium, and their alloys, and recovering such metals from scrap, (P.), B., 337.
 recovery of light metals from scrap, (P.), B., 373.
- I. G. Farbenind. A.-G., and Behrens, J., extraction of castor oil, (P.), B., 273.
- I. G. Farbenind. A.-G., and Benda, L., benzoxazolonearsenocompounds, (P.), B., 141*.
 substituted 4:4'-dihydroxybisacylaminoarsenobenzenes [3:3'-diacylamino-4:4'-dihydroxyarsenobenzenes], (P.), B., 875*.
- I. G. Farbenind. A.-G., and Bieling, R., stabilisation of substances used as ferments or antiseptics, (P.), B., 621.
- I. G. Farbenind. A.-G., Bieling, R., and Joseph, K., preparation of vaccines from bacterial poisons, (P.), B., 874.

- I. G. Farbenind. A.-G., Blumrich, K., Oswald, P., and Geisler, W., production of a basic calcium aluminium nitrate, (P.), B., 51.
- I. G. Farbenind. A.-G., Bockmühl, M., and Schwabe, R., manufacture of camphor solutions, (P.), B., 623.
- I. G. Farbenind. A.-G., and Brand, K., manufacture of 4-nitrobenzthiazoles, (P.), B., 225.
- I. G. Farbenind. A.-G., Braunsdorf, O., Nawiasky, P., and Holzappel, E., manufacture of vat dyes of the anthraquinone series, (P.), B., 848.
- I. G. Farbenind. A.-G., Brodersen, K., and Ext, W., insecticide, (P.), B., 240.
- I. G. Farbenind. A.-G., and Bub, L., manufacture of pure urea, (P.), B., 225*.
- I. G. Farbenind. A.-G., and Callsen, J., manufacture of halogenated alcohols, (P.), B., 360.
- I. G. Farbenind. A.-G., and Chemische Fabrik Griesheim-Elektron, treatment of [alcoholic] liquids containing tasty and aromatic substances for the purpose of improving their taste and aroma, (P.), B., 32.
- production of carbon disulphide from its elements, (P.), B., 45.
- high-percentage magnesium alloys, (P.), B., 198*.
- I. G. Farbenind. A.-G., Dachlauer, K., and Eggert, E., preparation of ethyl chloride from ethyl alcohol, (P.), B., 35.
- I. G. Farbenind. A.-G., Daimler, K., and Balle, G., manufacture of sulphonic acids of aralkylated polynuclear aromatic or hydroaromatic hydrocarbons, (P.), B., 846.
- I. G. Farbenind. A.-G., Dieterle, W., Matthies, O., and Reitstötter, J., manufacture of photographic silver halide emulsions, (P.), B., 465.
- I. G. Farbenind. A.-G., and Drucker, J., purifying brine to be used in electrolytic processes, (P.), B., 927.
- I. G. Farbenind. A.-G., Duisberg, W., Hentrich, W., and Zeh, L., preparation of β -hydroxyethyl-naphthylamines and their substitution products, (P.), B., 665.
- I. G. Farbenind. A.-G., Eichwede, H., and Zechentmayer, C., production of yellow, orange, and brown coloured patterns on cotton or silk materials with the aid of wax reserves, (P.), B., 855.
- I. G. Farbenind. A.-G., Engelhardt, A., and Motschmann, O., oxidation of hydrogen sulphide in gas mixtures to sulphur, (P.), B., 842.
- I. G. Farbenind. A.-G., and Farbenfabriken vorm. F. Bayer & Co., manufacture of new azo-dyes, (P.), B., 152, 226.
- I. G. Farbenind. A.-G., and Farbwerke vorm. Meister, Lucius, & Brüning, treatment of decamphorated oil of turpentine, (P.), B., 24.
- manufacture of alkyl-naphthalenes, (P.), B., 45.
- manufacture of benzanthrone derivatives containing sulphur, (P.), B., 46.
- manufacture of vat dyes, (P.), B., 83.
- manufacture of alkaline esters of *N*-substituted *o*-amino-benzoic acids, (P.), B., 107.
- preparation of 2-hydroxybenzanthrone, (P.), B., 119.
- manufacture of anthracene derivatives and of benzanthrone, (P.), B., 151.
- protection of wool from damage by bacteria, (P.), B., 154.
- manufacture of preparations of alkylcellulose and of artificial material and articles therefrom, (P.), B., 154.
- manufacture of condensation products of the anthracene series, (P.), B., 362.
- manufacture of condensation products and vat dyes of the benzanthrone series, (P.), B., 399.
- I. G. Farbenind. A.-G., and Finkelstein, H., production of crystalline basic aluminium nitrate, (P.), B., 51.
- I. G. Farbenind. A.-G., and Funcke, F., leather cement, (P.), B., 682.
- I. G. Farbenind. A.-G., and Gaus, W., composition to be used in connexion with anti-knock compounds, (P.), B., 439*.
- I. G. Farbenind. A.-G., Gaus, W., and Wild, W., production of mixtures of hydrogen and nitrogen, (P.), B., 447.
- I. G. Farbenind. A.-G., and Gossler, H., printing with vat dyes, (P.), B., 229.
- I. G. Farbenind. A.-G., Griessbach, R., Balz, O., and Rössler, A., manufacture of diammonium phosphate, (P.), B., 483*.
- I. G. Farbenind. A.-G., Griessbach, R., and Eisele, J., utilisation of lignin, (P.), B., 444.
- stable suspension and paste of coal, (P.), B., 843*.
- I. G. Farbenind. A.-G., Griessbach, R., and Röhre, K., manufacture of ammonium phosphate, (P.), B., 231*.
- manufacture of anhydrous magnesium chloride, (P.), B., 297.
- I. G. Farbenind. A.-G., Griessbach, R., and Schliephake, O., production of concentrated oxides of nitrogen, (P.), B., 816.
- I. G. Farbenind. A.-G., Griessbach, R., and Schmining, M., drying of gases containing ammonia and carbon dioxide, especially of gas mixtures circulating in the manufacture of carbamide, (P.), B., 857.
- I. G. Farbenind. A.-G., and Grimmel, H., manufacture of carbazole-2-carboxylic acid, (P.), B., 665.
- I. G. Farbenind. A.-G., and Grotowsky, H., manufacture of after-chromable dyes, (P.), B., 847.
- I. G. Farbenind. A.-G., Günzler, H., and Zieser, W., vulcanisation of rubber, (P.), B., 204.
- I. G. Farbenind. A.-G., and Hartmann, E., separation of complex phosphotungstomolybdic acids, (P.), B., 123.
- I. G. Farbenind. A.-G., and Heinze, P., apparatus for the decomposition of alkali and alkaline-earth amalgams, (P.), B., 759.
- I. G. Farbenind. A.-G., and Herrdegen, K., purification of alkali cyanide solutions containing sulphur, (P.), B., 191.
- I. G. Farbenind. A.-G., and Jänecke, E., manufacture of solid tripotassium phosphate, (P.), B., 602.
- I. G. Farbenind. A.-G., and Jelinek, K., development of vat dyes on the fibre by means of nitrites, (P.), B., 229.
- development of vat dyes [indigosols] on the fibre, (P.), B., 601.
- I. G. Farbenind. A.-G., Job, A., and Tesche, H., preparation of *N*-nitrosoamines of the anthraquinone series, (P.), B., 665.
- I. G. Farbenind. A.-G., Kaltwasser, O., and Kirehhoof, H., dyeing of furs, hairs, feathers, etc., (P.), B., 745*.
- I. G. Farbenind. A.-G., and Kaufmann, H. P., introduction of sulphocyanide [thiocyano-] groups into organic compounds, (P.), B., 516.
- I. G. Farbenind. A.-G., Kesseler, H., and Döring, E., dyeing of cellulose acetate and materials made therefrom, (P.), B., 229.
- I. G. Farbenind. A.-G., and Kirchseisen, T., fast dyeing on the fibre, (P.), B., 122*.
- I. G. Farbenind. A.-G., Knorr, A., and Steimmig, G., manufacture of dioxan, (P.), B., 886.
- I. G. Farbenind. A.-G., Kolie, W., Streitwolf, K., and Fehrlé, A., preparation of benzimidazolone-[5]-arsinic acids, (P.), B., 625*.
- I. G. Farbenind. A.-G., and Koppe, P., recovery of sulphur from ammonium polysulphide, (P.), B., 158*.
- I. G. Farbenind. A.-G., Krannich, W., Krzikalla, H., and Schuster, C., production of emulsions, (P.), B., 46*.
- I. G. Farbenind. A.-G., and Kropp, W., preparation of hydroxy-alkylamides of *o*-hydroxybenzoic acids, (P.), B., 36.
- I. G. Farbenind. A.-G., and Kuss, E., manufacture of paraformaldehyde, (P.), B., 362*.
- I. G. Farbenind. A.-G., and Lang, H., production of phosphoric acid, (P.), B., 748*.
- I. G. Farbenind. A.-G., and Lange, F., isolation of polyamyloses, (P.), B., 33.
- I. G. Farbenind. A.-G., Laska, A. L., and Zitscher, A., manufacture of azo-dyes, (P.), B., 184*, 400*.
- I. G. Farbenind. A.-G., Lautenschläger, L., Bockmühl, M., and Schwabe, R., manufacture of hypnotic solutions, (P.), B., 692.
- I. G. Farbenind. A.-G., and Legeler, E., continuous purification of raw carbon disulphide, (P.), B., 598*.
- I. G. Farbenind. A.-G., Leopold, R., and Michael, A., preparation of spirit-soluble resins, (P.), B., 867.
- I. G. Farbenind. A.-G., Luther, M., and Hochheim, E., [means for measuring the extent of the reaction in] apparatus for effecting chemical reactions in liquid media, or for concentrating liquids, (P.), B., 42.
- I. G. Farbenind. A.-G., Maennchen, K. F., and Hümmerich, F., production of stable preparations of vat dyes, (P.), B., 9.
- I. G. Farbenind. A.-G., Mariam, T., and Butenschön, W., manufacture of water-soluble condensation products from amines or acid amides and acetaldehydedisulphonic acid, (P.), B., 847.
- I. G. Farbenind. A.-G., Matthies, O., Wulff, P., Dieterle, W., and Wendt, B., manufacture of photographic silver halide emulsions, (P.), B., 693*.
- I. G. Farbenind. A.-G., Meyer, K. H., and Schütte, H., tanning of animal hides, (P.), B., 25.
- I. G. Farbenind. A.-G., and Michel, R., manufacture of condensation product from olefines and hydrocarbons of the naphthalene series, (P.), B., 440.
- I. G. Farbenind. A.-G., Mittasch, A., and Michael, W., isolation of hydrogen cyanide from gaseous mixtures, (P.), B., 604.
- I. G. Farbenind. A.-G., Mittasch, A., Müller, C., and Schubardt, W., manufacture of pure iron, (P.), B., 336.

- I. G. Farbenind. A.-G., Moschel, W., and Siedler, P., desiccation [dehydration] of molten metal chlorides, (P.), B., 13.
- I. G. Farbenind. A.-G., Müller, C., and Schlecht, L., production of chromium salts free from iron [from mixtures of chromic and ferric salts], (P.), B., 51.
production of aluminium and other metal salts free from iron, (P.), B., 747.
- I. G. Farbenind. A.-G., Müller, C., Schlecht, L., and Curs, A., decomposition of chromite, (P.), B., 128.
- I. G. Farbenind. A.-G., Müller, C., Schlecht, L., and Schubardt, W., precipitating heavy metals from ammoniacal solutions, (P.), B., 858*.
- I. G. Farbenind. A.-G., Müller, W. J., Drucker, J., and Carstens, H., washing and drying gelatinous substances [e.g., silica gel], (P.), B., 123.
- I. G. Farbenind. A.-G., and Müller-Cunradi, M., liquid fuel, (P.), B., 561.
- I. G. Farbenind. A.-G., and Münch, E., preparation of soluble derivatives of indigoid vat dyes, (P.), B., 599.
production of dyes or coloured substrates, (P.), B., 855.
- I. G. Farbenind. A.-G., Neresheimer, H., and Emmer, H., manufacture of benzanthrone derivatives containing sulphur, (P.), B., 119*.
- I. G. Farbenind. A.-G., and Nüsslein, J., fulling wool, (P.), B., 853*.
- I. G. Farbenind. A.-G., and Osvald, G., solutions for treating grain, (P.), B., 765.
- I. G. Farbenind. A.-G., Paquin, M., Voss, A., and Wohlers, H., manufacture of artificial resins, (P.), B., 867.
- I. G. Farbenind. A.-G., and Prillwitz, H., apparatus for mixing liquids, (P.), B., 734.
- I. G. Farbenind. A.-G., Pummerer, R., and Prell, E., manufacture of [vat] dyes from dinaphthylene oxide, (P.), B., 848.
- I. G. Farbenind. A.-G., Pungs, W., and Jahrstorfer, M., improving the properties of montan wax, (P.), B., 920*.
- I. G. Farbenind. A.-G., and Sander, F., washing solid material in centrifugal apparatus, (P.), B., 40.
- I. G. Farbenind. A.-G., Sator, K., and Pfannmüller, W., manufacture of paraformaldehyde, (P.), B., 634*.
- I. G. Farbenind. A.-G., and Schäfer, A., production of sodium sulphide, (P.), B., 814.
- I. G. Farbenind. A.-G., and Schäfer, W., wash-oil for the recovery of light oil from gases, (P.), B., 80.
- I. G. Farbenind. A.-G., Schirmacher, K., and Voss, A., preparation of [resinous] condensation products, (P.), B., 680.
- I. G. Farbenind. A.-G., Schladebach, H., and Hähle, H., [manufacture of writing] ink, (P.), B., 132*.
- I. G. Farbenind. A.-G., and Schlegel, W., reserves on silk, (P.), B., 855.
- I. G. Farbenind. A.-G., Schneider, C., and Dietrich, K., conducting catalytic reactions and absorptions, (P.), B., 111.
- I. G. Farbenind. A.-G., and Schnitzspahn, stable diazo-preparations (P.), B., 849.
- I. G. Farbenind. A.-G., Schranz, K., and Lutter, C., manufacture of new pharmaceutical compounds [alkoxymethylthiocobromines], (P.), B., 427.
- I. G. Farbenind. A.-G., and Schütte, H., production of tanning agents from sulphite-cellulose waste liquor, (P.), B., 25.
- I. G. Farbenind. A.-G., and Schuloff, R., manufacture of bodies of desensitising action, (P.), B., 213*.
- I. G. Farbenind. A.-G., and Schultze, H. S., agglomeration of pulverulent materials, (P.), B., 734*.
- I. G. Farbenind. A.-G., Schwabe, R., Eisleb, O., and Jensch, H., preparation of quinoline derivatives, (P.), B., 691.
- I. G. Farbenind. A.-G., and Seidel, W., crystallisation apparatus, (P.), B., 696.
- I. G. Farbenind. A.-G., and Sörensen, E., manufacture of mono-aryldiguandine salts of substituted dithiocarbamic acids, (P.), B., 845.
manufacture of heavy metal salts of disubstituted dithiocarbamic acid, (P.), B., 845.
- I. G. Farbenind. A.-G., and Specketer, H., production of iron-free alumina, (P.), B., 524*.
- I. G. Farbenind. A.-G., and Spengler, O., flux applied in soldering aluminium and its alloys, (P.), B., 198.
- I. G. Farbenind. A.-G., Spengler, O., and Thurm, A., manufacture of condensation products containing sulphur [tanning agents], (P.), B., 764*.
- I. G. Farbenind. A.-G., Steindorff, A., Daimler, K., and Balle, G., production of aromatic sulphonic acids for use as tanning agents, (P.), B., 420.
- I. G. Farbenind. A.-G., and Stöwener, F., preparation of highly active porous silica gel, (P.), B., 123.
- I. G. Farbenind. A.-G., and Ströder, E., apparatus for treatment of gases, (P.), B., 321*.
- I. G. Farbenind. A.-G., Tesche, H., and Job, A., preparation of nitro-compounds of arylaminoanthraquinones, their derivatives and substitution products, (P.), B., 665.
- I. G. Farbenind. A.-G., Tesche, H., and Tust, P., preparation of condensation products [vat dyes] of the anthraquinone series, (P.), B., 226.
- I. G. Farbenind. A.-G., and Thauss, A., manufacture of non-dyeing thio-derivatives of phenols, (P.), B., 886.
- I. G. Farbenind. A.-G., and Vierling, K., preservation of green fodder in silos, fermentation chambers, etc., (P.), B., 912.
- I. G. Farbenind. A.-G., Weinberg, A. von, and Schmidt, Werner, production of new *N*-alkylcarbazolephosphinous acids, (P.), B., 118*.
- I. G. Farbenind. A.-G., and Wenzl, H., bleaching with hypochlorites, (P.), B., 189*.
- I. G. Farbenind. A.-G., Wietzel, G., and Stöwener, F., production of [liquefied] dry gases, (P.), B., 734*.
- I. G. Farbenind. A.-G., Wietzel, G., and Wietzel, R., manufacture of organic acids, (P.), B., 8.
- I. G. Farbenind. A.-G., and Wietzel, R., manufacture of formyl compounds of [amines of] the aromatic series, (P.), B., 846.
- I. G. Farbenind. A.-G., Wild, W., and Beck, C., production of alkali nitrates, (P.), B., 641.
- I. G. Farbenind. A.-G., and Wilke, W., lubricant, (P.), B., 112.
- I. G. Farbenind. A.-G., and Winkler, F., preparation of water-gas and other combustible gases, (P.), B., 79.
drying and burning material in shafts, (P.), B., 111.
manufacture of fuel [water-gas], (P.), B., 844*.
- I. G. Farbenind. A.-G., and Wolff, Hugo, manufacture of vat dyes, (P.), B., 848.
- I. G. Farbenind. A.-G., and Wurzschnitt, B., composition for impregnation of wood, (P.), B., 232.
- Iarotzky. See Jarotzky.
- Ibbotson, F., determination of vanadium in steel, B., 861.
- Ibuki, T., intermediary carbohydrate metabolism. XXII. Formation of lactic acid from malic, fumaric, and maleic acids by the liver, A., 86.
- Ibuki, T. See also Okada, S.
- Ichikawa, T. See Horiba, S.
- Ichimi, T., Morimura, S., Masumizu, Y., and Yazawa, T., cetacea. XXIV. Composition of the urine, A., 84.
- Iconomov, D. K. See Dobrev, Alexander K.
- Ihara, S. See Asahina, Y.
- Ihlefeldt, J., multichamber mill for grinding materials of all kinds, (P.), B., 551.
- Ihlefeldt, J., and Polysius, G., rotary mill, (P.), B., 552.
- Ihrig, H. K., Campbell, S. E., and Associated Oil Co., production of nitrogenous-base oils from hydrocarbon materials, (P.), B., 595.
- Ihrig, H. K. See also Wallace, G. W.
- Iimori, S., formation of radioactive manganiferous deposits from Tanokami, and the source of manganese in the deep-sea nodules, A., 42, 268.
green kaolin from Tanokami, A., 42, 268*.
photochemical cells with complex cyanides of nickel or platinum, A., 959.
photochemical cell containing potassium ferrocyanide solution, A., 959.
- Iimori, S., and Kikuchi, U., constituents of petroleum from Maki, Echigo Province, B., 179.
- Iimori, S., Suzuki, K., and Zaidan Hojin Rikagaku Kenkyujo, manufacture of solvent oil, (P.), B., 826.
- Iimori, S., and Takebe, T., photogalvanic cell furnished with silver iodide electrodes, and its application to photometry and illuminometry, B., 576.
- Ikeda, T., dehydration of borneol, A., 69.
formation of camphene from pinene hydrochloride [bornyl chloride], A., 69.
- Iki, S., preparation of a catalyst by the electrolytic corrosion of nickel, A., 377, 600*.
- Ikonia, S., fish bile. I. *Serola quinqueradiata*, A., 640.
- Ilberg, W., method for determining the Kerr constant of poor insulating materials by means of alternating electric fields, A., 1172.
- Ilieff, M. See Benrath, A.
- Ilijn, B. See Nijhoff, G. P.

- Ijlin, W. S., determination of two kinds of sugar in a solution, A., 564.
determination of sugar by means of Fehling's solution and centrifuging, A., 564.
- Ijinski, M. A., and Kodner, D. J., primary action of chromic acid on animal fibre, B., 401.
primary action of chromic acid on wool fibre, B., 521.
- Ijinski, M. A., and Maxarov, B. V., oxidation of anthracene by oxides of nitrogen, B., 780.
- Illig, K., production and uses of beryllium, B., 787.
- Illig, K., and Schönfeldt, N., diaphragms. I. Measurement of electro-endosmosis, A., 583.
diaphragms. II. Porosity and endosmosis, A., 1184.
- Illingworth, S. R., and Illingworth Carbonization Co., Ltd., apparatus for the manufacture of briquettes, (P.), B., 219.
- Illingworth, S. R. See also Illingworth Carbonization Co., Ltd.
- Illingworth Carbonization Co., Ltd., and Illingworth, S. R., separation or extraction of liquids from materials, (P.), B., 144.
apparatus for cooling of coke, (P.), B., 920.
- Illingworth Carbonization Co., Ltd. See also Illingworth, S. R.
- Illinois Anthracite Corporation, production of solid, smokeless fuel from carbonaceous material, (P.), B., 559.
- Ilse, S. See Gebauer-Fülneegg, E.
- Imase, T. See Shiba, H.
- Imazu, T., increase in blood-sugar in experimental sunstroke of the rabbit, A., 1048.
- Imazu, T. See also Okada, S.
- Imbert, G., gas producer for use with wood, etc., (P.), B., 357.
- Imbert, G., and British Dyestuffs Corporation, Ltd., manufacture of phenylglycine or compounds thereof, (P.), B., 441*.
- Imberti, A. See De Paolini, I.
- Imhäuser, K., plasmalogen. II. Behaviour of plasmalogen in the serum of the newly born, A., 539.
- Imhäuser, K. See also Feulgen, R.
- Imhoff, K., and Fries, F., dealing with floating sludge in digestion chambers for sewage treatment, (P.), B., 944*.
- Immke, H. See Miehr, W.
- Imperial Chemical Industries, Ltd., and Alexander, T. J. R., explosives, (P.), B., 875.
- Imperial Chemical Industries, Ltd., Payman, J. B., and Piggott, H. A., manufacture of compounds of the morpholine series, (P.), B., 886.
- Imperial Chemical Industries, Ltd., Pope, R. W., and Wyler, M., intermediate compounds for sulphide dyes and dyes therefrom, (P.), B., 922.
- Imperial Chemical Industries, Ltd., and Riley, A., compounds of arylendiamines, (P.), B., 886.
- Imperial Institute, tanning materials of the British Empire. II. and IV., B., 133, 795.
value of sisal hemp for the manufacture of marine cordage, B., 294.
hemp from Cyprus, B., 294.
bamboos from British Guiana for papermaking, B., 294.
- Improved Office Partition Co. See Vinogradov, A.
- Imre, L. See Weszelszky, J. von.
- Inaba, K., alcohol of silicic acid, A., 1186.
- Inagawa, S. See Kanao, S.
- Inamura, K., action of water, air, oxygen, and carbon dioxide on the corrosion of iron, B., 233.
investigation of the corrosion of metals [iron] with a thermobalance, B., 233.
corrosion of copper and brass, B., 233.
- Inardi, G. See Testi, G.
- Ince, G., emulsification of transformer oils, B., 43.
action of light on transformer oils, B., 511.
- Industria Artieoli Caoutchouc (I.A.C.). See Cardile, G.
- Industrial Appliance Co., method and apparatus for curing [maturing], (P.), B., 34.
- Industrial Appliance Co. See also Dunlap, F. L., and Logan, J. I.
- Industrial Associates, Inc., atomisation of fluids, (P.), B., 41.
- Industrial Dryer Corporation, and Harris, G. D., humidification of materials, (P.), B., 506.
- Industrial Fibre Co. See Niederhauser, F. C.
- Industrial Rayon Corporation. See Niederhauser, F. C.
- Industrial Spray-Drying Corporation, and Holliday, R. L., manufacture of a finely-divided dry soap product, (P.), B., 865*.
- Industrial Technics Corporation. See Arsem, W. C.
- Industrial Waste Products Corporation, drying of waste sulphite liquors and other viscid liquids to obtain dry granular solids, (P.), B., 229.
- Industrial Waste Products Corporation. See also Dickerson, W. H.
- Inecto, Inc. See Vinogradov, A.
- Ingersoll, A. W., complete resolution of externally compensated acids and bases, A., 1139.
- Ingersoll, L. R., and Sordahl, L. O., temperature of the cathode as a factor in the sputtering process, A., 1311.
- Ingham, J. W., apparent hydration of ions. I. Densities and viscosities of saturated solutions of sodium and potassium chlorides in hydrochloric acid, A., 948.
apparent hydration of ions. II. Densities and viscosities of mixed aqueous solutions of lithium chloride and hydrochloric acid, A., 1184.
- Inglis, J. K. H., [preparation of] ethyl cyanoacetate, A., 624.
- Ingman, C. See Midland Coal Products, Ltd.
- Ingold, C. K., and Ingold, (Mrs.) E. H., alternating effect in carbon chains. XXVIII. Preparation and properties of benzyl fluoride, A., 1126.
- Ingold, C. K., and Rothstein, E., alternating effect in carbon chains. XXV. Mechanism of aromatic side-chain substitution. XXVI. Nitration of ω -chloro- and ω -bromo-*p*-xylene, A., 747.
- Ingold, C. K., and Shaw, F. R., alternating effect in carbon chains. XXII. Attempt further to define the probable mechanism of orientation in aromatic substitution, A., 164.
- Ingold, C. K., Shaw, F. R., Wilson, I. S., and Baker, J. W., alternating effect in carbon chains. XXVII. Nitration of aromatic phosphonium, arsonium, and stibonium salts, A., 782.
- Ingold, C. K., and Shoppee, C. W., possibility of ring-chain valency tautomerism, and of a type of mobile-hydrogen tautomerism analogous to the Wagner-Meerwein re-arrangement. I. Derivatives of phorone, A., 414.
possibility of ring-chain valency tautomerism, and of a type of mobile-hydrogen tautomerism analogous to the Wagner-Meerwein rearrangement. III. Orientation of some cyclic derivatives of phorone, A., 1014.
- Ingold, C. K., and Thorpe, J. F., hypothesis of valency deflexion, A., 690.
- Ingold, C. K., and Vass, C. C. N., alternating effect in carbon chains. XXIII. Anomalous orientation by halogens, and its bearing on the problem of the *ortho*-*para* ratio, in aromatic substitution, A., 402.
alternating effect in carbon chains. XXIX. Further experiments bearing on the problem of the *ortho*-*para* ratio in aromatic substitution, A., 1126.
- Ingold, C. K. See also Baker, J. W., Burton, H., Gane, R., and Goss, F. R.
- Ingold, C. T., and Small, J., hydrogen-ion concentration of plant-tissues. IX. Improved technique for the range indicator method, A., 1406.
- Ingold, (Mrs.) E. H. See Ingold, C. K.
- Ingram, B. S. See Schneible, J.
- Ingram, S. B., spectrum of sulphur, S II, A., 1068.
- Inikhov, G. S., and Shoshin, A. F., determination of the degree of rancidity in butter, B., 374.
- Inman, G. E. See British Thomson-Houston Co., Ltd.
- Innes, R. F., determination of sulphuric acid in vegetable [tanned] leather, B., 721.
- Inokuty, T., tensile test of steels at high temperatures, B., 752.
thermal brittleness in metals, B., 754.
- Inoue, T., spectrochemical studies on complex formations between mercuric salts and other metallic salts in dilute aqueous solutions. I. Formation of complex salts due to double decomposition of mercuric salts. II. Formation of complex salts in solution between mercuric cyanide and other metallic salts, A., 1185.
- Inoue, T. See also Shibata, Y.
- Inonye, K., effect of chemicals on glycerophosphatase, A., 551.
- Inonye, Katsumi, influence of occluded oxygen in steel on the carburising quality of steel, B., 369.
- Inouye, R. See Horiba, S.
- Insley, H., quantitative microscopic analysis of commercial feldspar, B., 193.
- Institution of Gas Engineers, Gas Investigation Committee, carbonisation. III. Temperature, size of coal, blending with coke and inorganic compounds, (P.), B., 555.
products of combustion from typical gas appliances. III. Appliances using free-burning flames, B., 557.
- Institution of Gas Engineers, Liquor Effluents Research Committee, disposal of liquor effluents from gas works, B., 556.
- Interessen Gemeinschaft der Farbenindustrie Akt.-Ges. See I. G. Farbenind. A.-G.
- International Agricultural Corporation. See Barr, J. A.

- International Bitumenoil Corporation, retorts, (P.), B., 771.
 International Bleaching Corporation. See Bragg, A. O.
 International Cement Corporation, manufacture of cement, (P.), B., 524.
 International Cement-Gun Co., G.m.b.H., and Binswanger, F., drying, neutralising, and delivering ammonium salts and other granular substances, (P.), B., 366.
 International Coal Carbonization Co. See Runge, W.
 International Combustion Engineering Corporation, and Runge, W., low-temperature distillation of coal, (P.), B., 220.
 International Copperclad Co., and Robinson, T., manufacture of building material, (P.), B., 334.
 International Copperclad Co., and Wanamaker, E. M., apparatus for electrodeposition, (P.), B., 22.
 International Dry Milk Co. See Dick, S. M.
 International General Electric Co., Inc., and Allgemeine Elektrizitäts-Gesellschaft, [lacquer-jenamelling furnaces, (P.), B., 419.
 coating wire, (P.), B., 759.
 International Milling Co. See Smith, L. E.
 International Nickel Co., [cast iron] alloy, (P.), B., 95.
 manufacture of wrought iron, (P.), B., 788.
 International Nickel Co. See also Lellep, O., Merica, P. D., and Pilling, N. B.
 International Patent Corporation. See Haglund, T. R.
 International Patents Development Co. See Copland, C., Ebert, C., Moffett, G. M., and Newkirk, W. B.
 International Precipitation Co., manufacture of waterproof plastic Portland cement, (P.), B., 606.
 International Precipitation Co. See also Anderson, E., McGrane, N. M., Schmidt, W. A., and Welch, H. V.
 International Reduction Co. See Hare, D. C.
 International Sugar & Alcohol Co., Ltd. See Koch, F.
 International Takamine Ferment Co., production of diastatic product, (P.), B., 543.
 Internationale Bergin-Comp. voor Olie- en Kolenchemie, and Debo, A., hydrogenation and cracking of hydrocarbon compounds, (P.), B., 80.
 Internationale Metall Akt.-Ges. See Schwarz, A.
 Internationale Nahrungs- & Genussmittel Akt.-Ges., production of mercaptans of the furfuryl series, (P.), B., 327.
 production of artificial coffee oil, (P.), B., 347.
 Internationale Oxygenium Mij. "Novadel," treatment of grain, seeds, fruits, and nuts, (P.), B., 835.
 Inubuse, M. See Asahina, Y.
 Ioanid, N. See Maxim, N.
 Ionesco, S., separation of tannins and anthocyanidins occurring in the same organs of plants; isolation of a new anthocyanidin from the red leaves of *Acer platanoides*, A., 335.
 formation of red anthocyan pigments in the red leaves of *Ampelopsis hederacea*, A., 802.
 Ionesco-Matiu, A., determination of reducing sugars by the ferri-cyanide method, A., 398, 564*.
 Ionesco-Matiu, A., and Bordeiano, C. V., determination of mercury salicylate and lactate, A., 313.
 volumetric method for determination of proteins in milk, B., 283.
 Ionesco-Matiu, A., and Carale, (Mile.) A., determination of cyanides and basic cyanides of mercury, A., 1230.
 Ionesco-Matiu, A., and Varcovici, H., determination of alkaloids by the mercurimetric method, B., 690.
 Ionescu, M. V., additive character of heterogeneous conjugated systems, A., 292*.
 unusual substitution reaction. I.—III., A., 421.
 truxenequinone; genetic relation between indanedione, diindone, and truxenequinone. II., A., 643.
 relation between molecular constitution and colour. III. Reciprocal influence of the component valency fields of a molecule; inversion of the absorptive character of two chromogens, A., 934.
 conjugated systems; factors disturbing valency fields. III., A., 1026.
 conjugated systems; factors disturbing valency fields. IV. Action of substances with active methylene groups on alkylidene (or arylidene)phenylmethylpyrazolones, A., 1026.
 identification of hexamethylenetetramine and formaldehyde; rapid analytical differentiation of the compounds in a mixture, A., 1117.
 Ionescu, M. V., and Georgescu, V., autocondensation of 1-phenyl-3-methyl-5-pyrazolone, A., 74.
 Ionescu, M. V., and Secareanu, S., factors disturbing valency fields; action of substances with an active methylene group on the carbindogenides. I. and II., A., 422.
 Iordanski, V. M. See Igarischev, N. A.
 Ipatiev, V., jun. See Ipatiev, V. N.
 Ipatiev, V. N., and Andreevski, I., precipitation of iridium from solution by hydrogen under pressure, A., 261*.
 Ipatiev, V. N., and Dolgov, B. N., hydrogenation of tetraphenylmethane and of *p*-hydroxytetraphenylmethane under pressure, A., 163, 747*.
 catalytic hydrogenation under pressure of *p*-hydroxytriphenylcarbinol and *p*-hydroxydiphenylmethane, A., 169, 410*.
 Ipatiev, V. N., and Ipatiev, V., jun., displacement of metals or their oxides from solutions by hydrogen under pressure; displacement of lead or its oxides; crystalline modifications of lead oxide, A., 603.
 Ipatiev, V. N., and Mouromtsev, B., formation of crystallised silicates in aqueous media, A., 257.
 Ipatiev, V. N., and Nikolaiev, V., separation of metals and their oxides from solutions of salts by hydrogen under pressure, A., 257.
 allotropic modifications of phosphorus obtained under high temperatures and pressures, A., 604, 1342.
 hydrogenation of tin salts at high temperatures and pressures, A., 721.
 Ipatiev, V. N., and Orlov, N., hydrogenation of distyryl ketone and di- β -phenylethyl ketone, A., 291*.
 Ipatiev, V. N., Orlov, N., and Petrov, A., reaction of phenol with propyl alcohol at high temperatures and pressures, A., 57.
 Ipatiev, V. N., and Petrov, A. D., pyrogenic decomposition of cyclic ketones, A., 179, 759.
 pyrogenic decomposition of ketones at high pressures, A., 759.
 Ipatiev, V. N., and Razubaiev, G., condensation of hydroxy-acids by the simultaneous action of several catalysts in the presence of hydrogen under high pressure; α -hydroxy-*n*-butyric and α -hydroxyisovaleric acids, A., 617.
 reduction of polybasic α -hydroxy-acids under the simultaneous influence of catalysts, A., 738*.
 condensation of α -hydroxy- and α -keto-acids under the simultaneous influence of catalysts, A., 739*.
 condensation of hydroxy-acids by catalysts in the presence of hydrogen at high pressures, A., 1355.
 Ipavic, H. See Zinke, A.
 Ipsen, C. L., and General Electric Co., heat-treatment of metals [hardening of steel], (P.), B., 234.
 heat-treating apparatus, (P.), B., 657.
 Ipsen, W. See Winterfeld, K.
 Irby, W., and General Electric Co., electrodes [for electric arcs], (P.), B., 454.
 Iredell, C. V., and Westinghouse Lamp Co., electron-emitting [refractory] material, (P.), B., 339.
 Iredell, C. V. See also Gero, W. B.
 Ireton, H. J. C. See McLennan, J. C.
 Irish, O. J. See Roe, J. H.
 Iron and Steel Institute, heterogeneity of steel ingots. Report II., B., 409.
 Ironside, R., diffraction of cathode rays by thin films of copper, silver, and tin, A., 938.
 Irvin, R. See Kohman, H. A.
 Irving, F. See Heilbron, I. M.
 Irving, J. T., dextrose metabolism of kidney tissue *in vitro*. II., A., 1049.
 Irving, L., and Wells, P. H., occurrence of labile phosphorus in various kinds of muscles, A., 665.
 Irwin, M., counteraction of inhibiting effects of various substances on *Nitella*, A., 95.
 effect of acetate buffer mixtures, acetic acid, and sodium acetate on the protoplasm as influencing the rate of penetration of cresyl-blue into the vacuole of *Nitella*, A., 95.
 does methylene-blue penetrate living cells? A., 793.
 spectrophotometric studies of penetration. IV. Penetration of trimethylthionine into *Nitella* and *Valonia* from methylene-blue, A., 1289.
 Isabolinski, M., and Gitovitch, V., antigenic properties of anatoxin, A., 674.
 Iserman, S., Vernet, W., Moses, E. Q., and Boyce & Veeder Co., Inc., fuel for internal-combustion engines, (P.), B., 222.
 Iserman, S., Vernet, W., Moses, E. Q., Hall, F. J., and Ratterman, L. B., fuel for use in internal-combustion engines, (P.), B., 359*.
 Igarischev, N. A., theory of galvanic cells, A., 482.

- Isgarischev, N. A., and Iordanski, V. M., dissolution of aluminium and its alloys in presence of different electrolytes, A., 486.
- Isgarischev, N. A., and Schapiro, F. S., activation of chemical reactions by neutral salts. II. Activation of the dissolution [in acids] of marble by neutral salts, A., 374.
- activation of the dissolution of marble by neutral salts, A., 376*.
- Ishibashi, H., relation between protein and urease, A., 1284.
- Ishida, S. See Komatsu, S.
- Ishida, Y., series relations of the neon spectrum, A., 1066.
- Ishida, Y., and Hiyama, S., Stark effect of Balmer series at high field, A., 1066.
- Ishidate, M. See Asahina, Y.
- Ishikawa, E., metabolism of the placenta. I., A., 918.
- Ishikawa, F., fictitious heat of dissolution of thallous sulphate, A., 134.
- Ishikawa, F., and Kimura, G., thermodynamic studies of cuprous and mercuric oxides, A., 246.
- Ishikawa, F., and Shibata, E., thermodynamic studies on zinc iodide and mercurous iodide, A., 365.
- Ishikawa, S., condensation of nitriles with thioamides. VI. Action of sulphur acid chlorides on thioamides. VII. Toluonitrile with thiotoluamide, naphthonitrile with thionaphthamide, and others, A., 411.
- condensation of nitriles with thio-acids. I., A., 412.
- action of metallic salts on thioamides and their derivatives. I. Mercuric chloride in ethereal solution, A., 412.
- Ishikawa, T., theory of binary mixtures and its application to calculating the association degrees of liquids, A., 241.
- Ishikawa, Y. See Oettingen, W. F. von.
- Ishino, M., and Kawata, S., experimental study of the absorption formula for the X-rays. I., A., 212.
- Ishiwara, M. See Atsuki, K.
- Ishiyama, N., chromoproteins; acid-combining properties of globin, A., 909.
- state of combination of nucleic acid in yeast, A., 1159.
- nuclear substance of liver cells, A., 1392.
- Ishihara, T., equilibrium diagram of the copper-tin system, A., 1328.
- Isnard, E., alteration of concentrated solutions of sodium bisulphite, B., 296.
- Isobe, H., and Yendô, Y., acidity of acidic earth and alkaline earth, A., 1088.
- Isom, E. W., Parmelee, C. L., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 842.
- Isom, E. W., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 80, 326.
- distillation of petroleum, (P.), B., 807.
- Isom, E. W., Vobach, A. C., and Sinclair Refining Co., oil still, (P.), B., 664.
- Isom, E. W. See also Bell, J. E., and Parmelee, C. L.
- Issekutz, B. V. von, and Leinzinger, M. von, pharmacological assay of ergot. I., A., 444.
- Issekutz, B. V. von, and Végh, F. V., action of insulin. III. Action on the gaseous exchange of the tortoise, A., 331.
- action of insulin. IV. Effect on the metabolism of the tortoise, A., 1286.
- Issiki, T. See Homma, J.
- Itallie, L. van, and Steenhauer, A. J., vanillin and piperonal as reagents for alkaloids, A., 311.
- fructus papaveris and sirupus papaveris as possible poisons, B., 388.
- Itano, A., and Arakawa, S., bacterial catalase, A., 1056.
- Itelsohn-Schechter, R. See Rona, P.
- Ithurrat, E. M. F., and Morera, V., clinical methods for the determination of hemoglobin, A., 314.
- Itier, J. A. H., and Société Le Textilon Central, rendering [cement] surfaces fluid-tight, (P.), B., 15*.
- Ito, C. See Sato, M.
- Ito, T., crystal form of ψ -yohimbine, A., 224.
- chemical reactions in presence of lyophilic colloids, A., 475.
- Itzkin, E. See Raknizn, M.
- Ivanenko, D., and Landau, L., theory of magnetic electrons. I., A., 811.
- Ivankin, V. See Zaykovski, J.
- Ivanov, A. A. See Stender, W. W.
- Ivanov, D., preparation of benzophenone by organo-magnesium compounds; mechanism of the reaction between organo-magnesium compounds and their carbonated derivatives, A., 417.
- Ivanov, D., pyrogenic decomposition of mixed magnesium carbonates; preparation of ketones, A., 619.
- Ivanov, I. T. See Krashikov, I. I.
- Ivanov, N. N., carbamide in fungi, A., 335.
- urea in fungi and its significance, A., 563.
- influence of geographical factors on the chemical composition of plants, A., 1061.
- Ivanov, S., Halphen reaction for cottonseed oil as a general reaction for oils of the families *Malvaceae*, *Tiliaceae*, and *Bombacaceae*, B., 236.
- Ivanovski, E. See Stadnikov, G.
- Ivanovski, N., determination of chlorides in blood by Volhard's method, A., 540.
- Ivanovski, N. See also Kultjugin, A.
- Ivanovski, V., and Turski, J., preservation of wood, (P.), B., 784.
- Ives, F. C., and Fenninger, C. W., production of a colour photograph or film, (P.), B., 245.
- Ives, H. E., and Johnsrud, A. L., optical determination of the thickness of photo-electrically active rubidium films, A., 340.
- Ives, H. E., Olpin, A. R., and Johnsrud, A. L., distribution in direction of photo-electrons from alkali metal surfaces, A., 931.
- Iwadare, T., manufacture of a new syphilis remedy from diamino-dihydroxyarsenobenzenemonomethylenesulphonic acid, (P.), B., 427.
- Iwamoto, K., micro-apparatus for the determination of mol. wt. by the cryoscopic method, A., 1109.
- Iwamoto, K. See also Nomura, H.
- Iwasaki, T., preparation of artificial silk, (P.), B., 187.
- Iwasaki, T., and Hagiwara, K., preparation of artificial silk of improved physical structure, (P.), B., 401*.
- Iwasaki, Y., content of vitamin-C in Japanese sand pear (*Pyrus serotina*, Rehder), kaki (*Diospros kaki*, L.), and Satsuma orange (*Citrus unshiu*), A., 1161.
- Iwase, E., preparation of red gold sols by reduction with extracts of fresh leaves and plants, A., 234.
- influence of mercaptan on the life-period of colloidal solutions of sulphur, A., 704.
- Iwase, K., and Miyazaki, K., electrode potential of single crystals of iron, A., 958.
- Iwase, K., and Watase, T., chemical equilibrium between iron, carbon, and oxygen; theoretical considerations of the reduction of iron ores, A., 243.
- Iwata, H., disintegration of rice straw, B., 910.
- Iwatsuru, R., micro-determination of the residual nitrogen of blood by means of sodium hypobromite, A., 912.
- Iyengar, A. V. V., spike disease of sandal (*Santalum album*, L.). II. Analysis of leaves from healthy and spiked trees. III. Physico-chemical study of the leaf sap, A., 1291.
- Izard, E. F. See Sherrill, M. S.
- Izkin, E. See Rakuzin, M.

J.

- Jabłczyński, K., equilibrium law of electrolytes and their conductive power, A., 589.
- Jabłczyński, K., and Knaster, M., influence of temperature on rate of coagulation of colloids, A., 361, 587*.
- Jabłczyński, K., and Soroczynski, M., kinetics of coagulation of colloids, A., 360, 587*.
- Jabłczyński, K., and Stankiewicz, W., nephelometric analysis using a spectrophotometer, A., 496.
- colorimetric analysis using a spectrophotometer, A., 496.
- Jablonski, L., neutralising leather after tannage or bleaching, (P.), B., 133.
- Jacek, W., and Lehr-Splawinska, Z., velocity of dissolution of solid substances, A., 12.
- Jack, D., band spectrum of water vapour. II. and III., A., 571, 1075.
- Jackerott, K. A. See Baggesgaard-Rasmussen, H.
- Jackman, A. J., and Vesuvius Crucible Co., manufacture of a refractory article, (P.), B., 125*.
- Jackman, D. N. See Parker, R. G.
- Jackman, H. W., direct gypsum process of ammonium sulphate recovery, B., 567.
- Jackson, C. E., Florida clay in bone china bodies, B., 816.

- Jackson, E. L., and Pasiut, L., synthesis of certain iodo-alkoxyacids and mechanism of reactions by which they are formed, A., 1131.
- Jackson, H., [beating] apparatus for hydrating fibrous pulp for the manufacture of paper and cellulose therefrom, (P.), B., 85*.
- Jackson, H. A. See Hall, R. E.
- Jackson, H. Y. V., motor spirit, with special reference to its use in internal-combustion engines, B., 149.
- Jackson, J., production of fertilisers from vegetable refuse, (P.), B., 584.
- Jackson, J. G., and Kenner, J., stereochemistry of tervalent nitrogen, A., 638.
- α -diamino- β -phenylpropane and related compounds of pharmacological interest, A., 1022.
- Jackson, L. C., atomic structure and the magnetic properties of co-ordination compounds. II, A., 3.
- Jackson, L. C., and De Haas, W. J., principal susceptibilities of manganese ammonium sulphate crystals at low temperatures, A., 1081.
- Jackson, L. E., and Wassell, H. E., treatment of fibrous material to render it proof against moth, (P.), B., 227.
- Jackson, V. T., [laboratory] gas generator, A., 984.
- Jackson, W. J., electrical conductivity of calcite, A., 845.
- Jackson, W. W. See Taylor, W. H.
- Jackson & Brother, Ltd., and Taylor, C., bleaching machines, (P.), B., 260.
- Jacob, H., intensity ratio of the doublets of the principal series of the alkali metals, A., 929.
- Jacob, K. D., and Reynolds, D. S., reduction of magnesium pyrophosphate by carbon, A., 379.
- fluorine content of phosphate rock, B., 538.
- Jacob, K. D. See also Reynolds, D. S.
- Jacob, L. See Ryde, J. W.
- Jacobi, K. J., and Pacific Coast Borax Co., heat-treatment of alloys, (P.), B., 336.
- Jacobi, W., and Keuscher, W., microchemical detection of potassium and calcium in histological sections, A., 440.
- Jacobs, E. H., and Electrical Engineers Equipment Co., refining of copper, (P.), B., 19.
- Jacobs, L. See Robson, S. M.
- Jacobs, O., behaviour and necessary properties of dolomite for steel works, B., 674.
- Jacobs, W. A., and Gustus, E. L., digitalis glucosides. I. Digitoxigenin and isodigitoxigenin, A., 1120.
- strophanthin. XVI. Degradation in the isostrophanthidin series, A., 1376.
- digitalis glucosides. II. Gitoxigenin and isogitoxigenin, A., 1376.
- Jacobs, W. A., and Heidelberger, M., [preparation of] chloroacetamide, A., 401.
- Jacobs, W. A., and Hoffmann, A., periplocymarin and periplogenin, A., 1359.
- strophanthin. XV. *Hispidus* strophanthin, A., 1376.
- Jacobsen, J. See Schnabel, R.
- Jacobsen, J. C., γ -ray emission and the law of radioactive transformation, A., 104.
- Jacobsohn, K., experiments on hypersensitisation, B., 211.
- Jacobsohn, K. P. See Neuberg, J.
- Jacobsohn, M. See Rothschild, F.
- Jacobson, B. H. See Stone, H. G.
- Jacobson, D. L. See Sperr, F. W., jun.
- Jacobson, D. S., and Babcock & Wilcox Co., degassing of water, (P.), B., 74.
- cement-kiln system, (P.), B., 266.
- Jacobus, W. L. See Grant, R. F., and Wetherbee, H. E.
- Jacoby, (Frl.) D. See Pincussen, L., and Traube, I.
- Jacoby, M., adsorption of urease by cholesterol, A., 202.
- action of fluoride on urease, A., 1158.
- urease, A., 1283.
- Jacoby, R. W., and Deltex Co., treatment of printed or dyed fabrics, (P.), B., 365.
- Jacqué, L. See Jacqué, M.
- Jacqué, M., and Jacqué, L., phosgene, B., 222.
- Jacques, R., analyses of paints with plumbago base, B., 418.
- Jacquet, G. See Beraud, A.
- Jacquet, P. See Marie, C.
- Jäger, A., and Herold Aktien-Gesellschaft, manufacture of white artificial horn, (P.), B., 101.
- Jaeger, A. O., Bertsch, J. A., and Selden Co., catalytic oxidation of sulphur dioxide, (P.), B., 297.
- Jaeger, A. O., and Selden Co., catalytic apparatus, (P.), B., 320.
- purification of crude aromatic hydrocarbons, (P.), B., 740.
- contact sulphuric acid process, (P.), B., 783.
- Jaeger, A. O. See also Monsanto Chem. Works, and Selden Co.
- Jaeger, F. M., and Blumendal, H. B., rotation dispersion and spatial configuration in complex salts of cobalt and of rhodium containing ethylenediamine and *trans*-1:2-diaminocyclopentane, A., 1172.
- Jaeger, F. M., and Melle, F. A. van, structure of artificial ultramarines. III. Silver and alkali silver ultramarines which are derivatives of Guimet's ultramarine-blue with high silica content, and mixed alkali ultramarines and *n*-butyl silver ultramarine, A., 463.
- symmetry and structure of the cubic nitrates of calcium, strontium, barium, and lead, A., 1313.
- Jaeger, F. M., and Rosenbohm, E., exact determination of the specific heat of solid substances between 0° and 1625°. I. Method and apparatus, A., 469.
- exact determination of the specific heat of solid substances between 0° and 1625°. II. Specific heat of platinum and tungsten, A., 696.
- Jaeger, G., determination of the concentration of solutions, A., 1180.
- Jaeger, W., and Steinwehr, H. von, heat of combustion of benzoic acid in international joules, A., 1096.
- Jägerhorn, E., detection of the decomposition of linseed oil by the diphenylcarbazide reaction of Stamm and the Fellenberg test, B., 578.
- determination of "true content" of essential oils in drug according to Stamm's method using the butyrometer, B., 587.
- Jänecke, E., system lime-alumina-silica, A., 131.
- incomplete miscibility phenomena in aqueous solutions of ammonia and an inorganic salt, A., 356.
- alloys of sodium, potassium, cadmium, and mercury, A., 480.
- mixed crystals, solutions, and fusions of the system (K,NH₄)(Cl,NO₃), A., 1095.
- Jänecke, E. See also I. G. Farbenind. A.-G.
- Järvinen, K. K., determination and separation of chromium, iron, aluminium, and phosphorus, A., 1206.
- determination of the cresols. II, B., 515.
- Jaffe, E., detection and determination of arachis oil in olive oil, B., 865.
- Jaffé, R., lipin metabolism and generative glands, A., 323.
- Jahn, K. See Schoeller, W. R.
- Jahnke, K., production of hard low-temperature coke, (P.), B., 394.
- Jahrstorfer, M. See I. G. Farbenind. A.-G.
- Jairam, H. See Hewer, H. R.
- Jaisle, J. See Grube, G.
- Jajte, S., basic mercurous nitrate, A., 31.
- Jakkula, A. A., heat changes during setting of alumina and Portland cements, B., 93.
- Jakosky, J. J., production of printing ink, (P.), B., 614.
- Jakovlev, A. See Dumanski, A. V.
- Jakovleva, V. S. See Krestinskaja, V. N.
- Jakubtschuk. See Yakubchik.
- Jalowzer, B. See Stiasny, E.
- Jambor, N., lecithin reaction for detecting egg yolk in leather, B., 829.
- James, J. H., oxidation of mineral hydrocarbons, (P.), B., 438.
- James, J. H., and Byrnes, C. P., production of oxidation products from gaseous hydrocarbons, (P.), B., 633.
- treatment of partial oxidation products, (P.), B., 845.
- purification of partial oxidation products, (P.), B., 845.
- manufacture of an insoluble soap from aldehyde-fatty acid mixtures [catalytic oxidation products] of mineral oil, (P.), B., 865.
- James, L. H., Bidwell, G. L., and McKinney, R. S., "spontaneous" ignition in stable manure, B., 683.
- James, R. G., and Wardlaw, W., co-ordination compounds of quinquivalent molybdenum: complex thiocyanates, A., 1343.
- James, R. W., polarisation factor in X-ray reflexion, A., 340.
- James, R. W., and Firth, E. M., X-ray study of the heat motion of the atoms in a rock-salt crystal, A., 225.
- James, R. W., Waller, I., and Hartree, D. R., existence of zero-point energy in the rock salt lattice by an X-ray diffraction method, A., 462.
- James, R. W. See also Waller, I.
- James, T. C. See Hanson, N. W., and Williams, D. M.

- James, *T. R.*, and Huber, *L. X.*, physical properties of washed gluten, B., 105.
- yeast fermentation in flour-water suspensions, B., 621.
- James, *W. O.*, vegetable assimilation and respiration. XIX. Effect of variations of carbon dioxide supply on the rate of assimilation of submerged water plants, A., 801.
- Jamet, *A.*, and Girard, *A. J.*, determination of insoluble matter [in tannin] by filtration in presence of kaolin, B., 721.
- Jamieson, *A. R.*, and Keyworth, *C. M.*, identification of prohibited coal-tar colours in foodstuffs, B., 728.
- Jamieson, *G. S.*, Baughman, *W. F.*, and Hann, *R. M.*, avocado [pericarp] oil, B., 678.
- Jamieson, *G. S.* See also Baughman, *W. F.*, and Hann, *R. M.*
- Jamieson, *R. W.* See Nelson, *H. A.*
- Jamison, *G. W.* See Smith, *L. B.*
- Jancke, *W.* See Bergman, *M.*, and Herzog, *R. O.*
- Jander, *G.*, behaviour of certain weak inorganic acids in solution, A., 949.
- Jander, *G.*, and Brösse, *W.*, quantitative separations and determinations by volatilisation with hydrogen chloride. VI. Determination of oxide in aluminium alloys, A., 860.
- Jander, *G.*, and Busch, *F.*, separation and determination of tin in the analysis of stannates by their decomposition in a current of hydrogen chloride, A., 146.
- Jander, *G.*, and Faber, *H.*, rapid gasometric determination of potassium, A., 980.
- Jander, *G.*, and Mojert, *D.*, quantitative separation and determination by evaporation with gaseous hydrogen chloride. VII. Separation and determination of the components of tungstates, A., 1206.
- Jander, *G.*, and Pfundt, *O.*, volumetric determination of potassium, A., 980.
- Jander, *W.*, reactions in the solid state. III. Heterogeneous equilibria in systems in which gas is evolved, A., 131.
- reactions in the solid state, A., 256.
- reactions in the solid state. IV. Compounds resulting from the reaction between basic and acidic oxides and carbonates and the mode of compound formation, A., 971.
- Jander, *W.*, and Rothschild, *K.*, equilibria of sulphides and silicates in slags, A., 711.
- Janek, *A.*, and Jirgensons, *B.*, viscosity of agar and gelatin solutions in presence of alcohols and salts, A., 951.
- Janisch, *R.* See Chem. Fabr. *H. Stoltzenberg.*
- Janke, *A.*, and Lacroix, *H.*, vitamin "D_m" [bios] in fermentation vinegar, A., 207.
- Janke, *L. A.*, and Popberger, *F.*, analytical characterisation of fermentation vinegar, B., 584.
- Janković, *S.*, influence of certain factors on formation of empyreumatic oil by fermentation of molasses, B., 32.
- Jankovsky, *V. D.* See Gagarina, *E. D.*, and Golzov, *P. J.*
- Jansen, *H. C.*, and Jansen, *J. P. H.*, manufacture of yeast, (P.), B., 585.
- Jansen, *H. J.*, distillation and cracking of hydrocarbon oils, (P.), B., 514*.
- Jansen, *J. P. H.* See Jansen, *H. C.*
- Jansen, *W. H.*, and Loew, *A. M.*, inorganic substances in human blood. I. Cation and anion content of normal serum, A., 316.
- Jansen, *W. H.*, and Robert, *F.*, iodine and exophthalmic goitre, A., 790.
- Janssen, *G.*, and Metzger, *W. H.*, transformation of nitrogen in rice soil, B., 764.
- Janssen, *H. J. J.*, and Harbens (Viscose Silk Manufacturers), Ltd., manufacture of viscose artificial silk, (P.), B., 330.
- Janssen, *H. J. J.*, and Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek, treatment of textile fibres, yarns, fabrics, etc. for obtaining effects of colour or lustre or both, (P.), B., 122*.
- Jantzen, *E.*, and Schmalfuss, *H.*, rapid evaporation at room temperature, B., 589.
- Janvier, *W.* See Rowsell, *H. W.*
- Janzen, *T.* See De Diesbach, *H.*
- Janzig, *A. C.*, eliminating a source of error in the colorimetric determination of manganese, B., 142.
- Jardin, *L. C. P.*, direct transformation of cellulose into defibred alkali cellulose for the manufacture of viscose, (P.), B., 889.
- Jardine, *J. L.* See Holmes, *J.*
- Jardine, *R.*, and Rich Tool Co., alloy steels for motor valves, (P.), B., 269.
- Jaroslav, *E.* See Schröder, *R.*
- Jaroslav's Erste Glimmerwaren-Fabrik in Berlin, and Schröder, *R.*, manufacture of fibrous compounds and articles moulded therefrom, (P.), B., 48.
- Jaroslav's Erste Glimmerwaren-Fabrik in Berlin. See also Schröder, *R.*
- Jarotzky, *N.*, [lamp] to obtain the maximum short-wave ultra-violet radiation, A., 1075.
- Jarussova, *N.*, nitrogen balance and the urinary C:N coefficient in experimental scurvy, without complication by hunger, A., 1153.
- Jaschke, *O.*, extracting, separating, and utilising the starch and protein contents of rice, (P.), B., 835.
- Jaskólski, *S.*, chlorite-schists from the Tatra Mts., A., 731.
- Jasper, *T. McL.*, building of containers for severe service, B., 430.
- Jaubert, *G. F.*, liquefaction of gases, (P.), B., 75.
- purification of iron alloys with a high silicon content, (P.), B., 95.
- Jaulmes, *P.*, volatility in steam of certain enologic acids, B., 871.
- Jauncey, *G. E. M.*, intensity of reflexion of X-rays by crystals and the Compton effect, A., 1293.
- intensity of scattered X-rays and the Compton effect, A., 1297.
- Jauncey, *G. E. M.*, and Claus, *W. D.*, intensity of reflected X-rays and the distribution of electrons in crystals, A., 692.
- is crystal reflexion of X-rays entirely a classical phenomenon? A., 693.
- interpretation of atomic structure factor curves in crystal reflexion of X-rays, A., 938.
- Jauregui, *M. G.*, biological assay of aconite, B., 35.
- Javillier, *M.*, Allaire, *H.*, and Rousseau, *S.*, nucleic phosphorus balance in mice deficient in lipid-soluble nutriment, A., 547.
- Javillier, *M.*, and Crémieu, *A.*, nucleic phosphorus balance and the phosphorus relations in some complete organisms (chiefly invertebrates), A., 541.
- Javillier, *M.*, Crémieu, *A.*, and Hinglais, *A.*, comparison of the nucleic phosphorus balance of the organs of different species of vertebrates, A., 541.
- Javillier, *M.*, and Djelatides, *D.*, volumetric micro-determination of phosphorus and its application to biological analyses, A., 564.
- Jazyna, *W.*, null point [absolute zero] state, A., 241.
- inversion point of the second order, A., 933, 1312.
- Jeangros, *J.*, permeability of cells. XIV. Excretion of sugars by the salivary glands, A., 1393.
- Jeannin, *R. A. A.*, purification of fat solvents after use, (P.), B., 418.
- Jeans, *J. H.*, [liquid stars and atomic volume], A., 456.
- Jeavons, *A. N.* See Rentschler, *M. J.*
- Jeavons, *W. R.* See Rentschler, *M. J.*
- Jedrzejowski, *H.*, inversion phenomenon of biotite exposed to the action of α-rays, A., 215.
- charge of α-particles emitted per sec. by 1 g. of radium, A., 343.
- Jeffery, *F. H.*, lead-tin system of alloys re-examined by an electrical resistance method, A., 366.
- Volhard-Harvey method for determination of chlorides in urine, A., 1394.
- Jeffrey, *E. C.*, origin and organisation of coal, A., 1210.
- Jeffrey Manufacturing Co. See Ossing, *S. F.*
- Jeffreys, *H.*, structure of liquids and vitreous solids, A., 226.
- Jeffreys, *R. B.* See Benjamin, *L. R.*
- Jegge, *E. O.*, adsorption phenomena in primary cells, B., 452.
- Jeglinski, *H.* See Böhm, *E.*
- Jelinek, *V. C.* See Hamilton, *C. S.*
- Jeller, *R.*, graphical calculation of gas combustion analyses, B., 113.
- Jellicoe, *R. V.*, preservation of fruits, etc., (P.), B., 138.
- Jellinek, *K.*, and Podjaski, *G. von*, heterogeneous equilibrium between metallic chlorides and hydrogen sulphide, and between metallic sulphides and hydrogen chloride at higher temperatures, A., 844.
- Jellinek, *K.*, and Potiechin, *B.*, reduction of metallic oxides; equilibrium $\text{Zn} + \text{CO}_2 \rightleftharpoons \text{ZnO} + \text{CO}$, A., 957.
- Jellinek, *K.*, and Rudat, *A.*, fluorine tension of metallic fluorides and the chemical constants of fluorine and hydrogen fluoride, A., 1191.
- Jellinek, *K.*, and Zucker, *L.*, heterogeneous equilibrium $\text{CdBr}_2 + \text{H}_2\text{S} \rightleftharpoons \text{CdS} + 2\text{HBr}$ at higher temperatures, A., 844.
- Jellinek, *K.* See also I. G. Farbenind. A.-G.
- Jellinghaus, *W.* See Tammann, *G.*
- Jenaer Glaswerk Schott & Gen. See Thiene, *H.*

- Jenckel, E. See Tammann, G.
- Jendrassik, L., and Cziike, A., does adrenaline act through calcium? A., 448.
chemistry of vegetative stimulation; alleged rôle of ions, A., 548.
determination of blood-bilirubin, A., 1392.
- Jenke, M., origin of bile acids. I. Determination of bile acid, cholesterol, and the other unsaponifiable constituents in dog's bile, A., 789.
- Jenke, M. See also Enderlen, E.
- Jenkin, J. W. See Archbutt, S. L.
- Jenkins, A. C. See Dana, L. I.
- Jenkins, C. H. M., strength of a cadmium-zinc and of a tin-lead alloy solder, B., 714.
- Jenkins, F. A., extension of the violet CN band system to include the CN tail bands, A., 506.
structure and isotope effect in the α -bands of boron monoxide, A., 1308.
- Jenkins, F. A. See also Kemble, E. C.
- Jenkins, J. D., and Croll, P. R., testing of finished lacquers, B., 61.
- Jenkins, L. J. See Frey, R. W.
- Jenkinson, T. A. See Hodgson, H. H.
- Jenks, H. N., and Levine, M., stream-flow sewage-treatment process, B., 503.
- Jenks, L. E., plasticity of clay, B., 641.
- Jenner, C. W., production of a storage-battery plate, (P.), B., 415.
- Jennings, D. S. See Thomas, M. D.
- Jensch, H. See I. G. Farbenind. A.-G.
- Jensen, F., and Hill, B. E., centrifugal apparatus for the purification of liquids [water], (P.), B., 286.
- Jensen, H., and Geiling, E. M. K., crystalline insulin. VII. Acetylation and behaviour of insulin towards alkali, A., 1160.
- Jensen, H., and Rethwisch, F., acridines. IV. Preparation of hydroxy-acridines and 5-substituted acridine derivatives, A., 650.
- Jensen, H. See also Du Vigneaud, V.
- Jensen, H. L., *Actinomyces acidophilus*, n.sp.; a group of *acidophilus Actinomyces* isolated from the soil, B., 343.
- Jensen, H. R., barium sulphate losses in gravimetric determinations, A., 497.
esters of lemon and orange oils, B., 139.
rapid determination of sulphites [in foods] by alkaline liberation or extraction, and titration, B., 347.
cacao tannin and its determination, B., 653.
- Jensen, M. A. See Hall, N. F.
- Jephcott, C. M., Friedel and Crafts' reaction in the pyridine series, A., 647.
- Jephcott, H., and Baoharach, A. L., determination of vitamin-D, A., 332.
- Jeppeson, A., alteration of hydrogen-ion concentration of stable kaolin suspensions by mechanical working in capillaries, A., 835.
- Jeremias, A., production of waterproof impregnating, finishing, and colour coatings, (P.), B., 340.
- Jeremiassen, F., crystallisation apparatus, (P.), B., 553.
- Jerike, J., [differential expansion] apparatus for measuring or controlling temperatures, (P.), B., 774.
- Jermoljeva, Z., antigenic properties of the distillates of certain bacterial cultures, A., 674.
- Jernstad, A. See Volmar, Y.
- Jernberg, A. V., production of artificial fogs [from phosphorus], (P.), B., 403.
- Jerred, C. B. See Newey, J. G.
- Jessen, W. See Lemmermann, O.
- Jessop, G. See Adam, N. K.
- Jessup, A., production of pure magnesium, (P.), B., 58.
- Jessup, A. C., electrolytic production of metals, (P.), B., 21.
electrolytic preparation of magnesium and metals of the alkaline earths, (P.), B., 97.
- Jessup & Moore Paper Co., electrolytic cell, (P.), B., 98.
- Jette, A. N., rabble furnace, (P.), B., 488.
- Jevons, W., ultra-violet band system of carbon monosulphide and its relation to those of carbon monoxide (the "4th positive" bands) and silicon monoxide, A., 105.
- Jevons, W. See also Curtis, W. E.
- Jex, C. S. See Shaw, P. E.
- Jilek, A., and Lukas, J., determination of selenium by rapid electro-analysis, A., 144.
- Jilek, A. See also Lukas, J., and Svagr, E.
- Jirgensons, B., coagulation of hæmoglobin in presence of alcohols. III., A., 236.
coagulation of hæmoglobin in presence of organic substances, A., 437.
method for measuring coagulation, A., 475.
colloid chemistry of hæmoglobin. I. and II., A., 537, 1390.
coagulation of strongly solvatised sols by organic substances and salts. I. and II., A., 839, 1322.
reversible transformation of cathæmoglobin, A., 1150.
- Jirgensons, B. See also Janek, A.
- Jirkovsky, R. See Ulrich, F.
- Jirotko, B., and Sprenger Patentverwertung Jirotko m.b.H., O., production of hard, homogeneous fuel or similar objects from peat, peat moss, lignite, etc., (P.), B., 150*.
- Jirsa, E. See Blumenstock-Halward, R.
- Joachimoglu, G., apparatus for graphic registration of fermentation, A., 203.
- Joachimoglu, G. See also Ehrismann, O.
- Joachimsohn, K. See Ettisch, G.
- Job, A., and Rouvillois, J., preparation of a tungsten carbonyl by means of a [Grignard] magnesium compound, A., 1201.
- Job, A. See also I. G. Farbenind. A.-G., Küster, W., Mieg, W., and Tesche, H.
- Job, P., formation and stability of metallic complexes in solution, A., 589.
application of the spectrographic and spectrophotometric methods to the study of the hydrolysis of some alkaline salts, A., 855.
- Jobloński, A., fluorescence and band spectrum of cadmium vapour, A., 459.
- Jochims, J., cover-glass for conducting microchemical reactions in the Zeiss quartz cell, A., 147.
measurement of viscosity, especially of egg-white, B., 111.
- Jochmann, E., Fellenberg's method for the determination of iodine, A., 607.
- Jodeck, P., and Allgemeine Gesellschaft für Chemische Industrie, production of liquid sulphur dioxide from the products of combustion of sulphur or sulphurous pyrites, (P.), B., 192.
- Jodeek, P. See also Edeleanu, L.
- Jodidi, S. L., isolation and identification of some organic nitrogenous compounds occurring in etiolated maize seedlings, A., 93.
- Joens, W., gas detector, (P.), B., 144.
- Jönsson, A., intensity relationships in *L* X-ray series, A., 211.
- Jönsson, E., absorption of X-rays in various elements, A., 340.
- Jörg, H., micro-determination of mol. wt., A., 338.
- Jörg, H., and Stetter, J., silicon organic compounds. I. Phenol esters of silicic acid, A., 188.
- Jörg, H. See also Haitinger, M.
- Jørgensen, E. M. See Erslev, E. M.
- Jørgensen, H., use of chromatographic solutions as comparison standards for the determination of "gasoline colour values," B., 105.
analytical detection of bleaching of wheat flour, B., 585.
- Joia, S. See Spitalski, E.
- Joffé, A., relation between cohesion and tensile and dielectric strength, A., 111.
mechanical and electrical cohesion and molecular forces, A., 112.
refraction quotient of the De Broglie waves of electrons, A., 810.
production of thin electric insulating layers having a high resistance to leakage, (P.), B., 339.
[multi-layer] insulating material, (P.), B., 760.
- Joffe, J. S., and McLean, H. C., colloidal behaviour of soils and soil fertility. IV. Anion effect on precipitation reactions and degree of dispersion of aluminium and iron hydroxides, B., 723.
colloidal behaviour of soils and soil fertility. V. Distribution of soluble and colloidal iron and aluminium in soils, B., 937.
- Jog, O. S., regularities in the spectra of sexavalent elements, A., 677.
- Johanson, V., utilisation of phosphorite phosphoric acid by plants, B., 135.
- Johansson, C. H., transformation of β -brass and the demagnetisation process of ferromagnetic metals, A., 225.
- Johansson, C. H. See also Borelius, G.
- Johansson, H. See Euler, H. con.
- Johlin, J. M., surface tension of physiological solutions; difficulties of measurement and interpretation, A., 336.
effect of carbon dioxide equilibration on surface tension of blood-serum, A., 439.

- John, H., quinoline derivatives. X. 4-(2-Phenylquinolyl)amino-benzoic acids, A., 649.
- John, H. [with Kahl, F.], quinoline derivatives. V. Synthesis of furfurylidene- and cinnamylidene-2-methylquinoline-4-carboxylic acids. VI. Synthesis of 2-styryl-3-alkylquinoline-4-carboxylic acids, A., 302.
- John, H. [with Wünsche, E.], quinoline derivatives. VII. 4-Amino-2-phenylquinoline derivatives, A., 528.
- quinoline derivatives. VIII. Derivatives of 4-hydroxy-2-phenylquinoline. IX. 4-Thiol-2-phenylquinoline and 2-phenylquinoline-4-sulphonic acid, A., 649.
- John, H. J., carbohydrate metabolism in hyperthyroidism, A., 915.
- John, M. See Wessely, F.
- Johns, A. L., and Evans, E. J., conductivities of some dilute amalgams at various temperatures, A., 244.
- Johnson, A. H., effect on their bread-making properties of extracting flours with ether, B., 622.
- Johnson, A. H., and Herrington, B. L., wheat and flour studies. XII. Factors influencing the viscosity of flour-water suspensions. II. Effect of hydrogen-ion concentration during extraction or digestion period, B., 281.
- wheat and flour studies. XIV. Factors influencing the viscosity of flour-water suspensions. III. Effect of small quantities of carbon dioxide in water used for the extraction of electrolytes, B., 463.
- Johnson, A. H., and Scott, S. G., wheat and flour studies. XIII. Relation between the fusibility of flour ash and its mineral constituents, B., 282.
- Johnson, A. H. See also Whitecomb, W. O.
- Johnson, B., resolution of aqueous emulsions of tar, (P.), B., 220, 920*.
- Johnson, B. L., acceleration of lipase activity by substances containing vitamin-A, A., 1282.
- Johnson, B. M., and Carborundum Co., heating kiln, (P.), B., 467.
- Johnson, B. M., and King, J. A., use of silicon carbide refractories in boiler furnaces, B., 264.
- Johnson, C. See Langer, C.
- Johnson, C. H., method of measuring the radiant heat emitted during gaseous explosions, A., 353.
- Johnson, C. H. See also Garner, W. E.
- Johnson, C. R., carbon black. I. Volatile constituents, B., 775.
- Johnson, C. S., proportioning the total water in concrete, (P.), B., 750.
- Johnson, E. N. See King, P. E.
- Johnson, E. W. See Kraus, C. A.
- Johnson, F. M. G. See Lipsett, S. G., and Steacie, E. W. R.
- Johnson, J. D. A. See Gibson, C. S.
- Johnson, J. M., and Voegtlin, C., preparation and properties of glutathione, A., 196.
- Johnson, J. R., and Gauerke, C. G., [preparation of] *m*-bromonitrobenzene, A., 626.
- Johnson, J. R., and Hager, F. D., [preparation of] methyl *n*-amyl ketone, A., 397.
- Johnson, J. R. See also Moreau, C.
- Johnson, L. R., and Wormald, A., potassium thiocyanate and diastatic action of saliva- and plant-diastases, A., 1156.
- Johnson, M. See Lund, G.
- Johnson, M. C., behaviour of hydrogen and mercury at the electrode surfaces of spectrum tubes, A., 567.
- Johnson, N. C., mixing apparatus, (P.), B., 3.
- Johnson, N. G., Baker, S. G., jun., and Du Pont de Nemours & Co., E. I., dynamite composition, (P.), B., 944.
- Johnson, O., and Laucks, Inc., I. F., treatment of soya beans, (P.), B., 764.
- Johnson, P. H. See Swinden, T.
- Johnson, R. See Dnulevy, J.
- Johnson, S. C., treatment of boiler-feed waters of low incrustant content, B., 876.
- Johnson, T. See Hägglund, E.
- Johnson, T. B., and Renfrew, A. G., chemical changes accompanying the growth of tubercle bacilli on Long's synthetic medium, A., 1403.
- Johnson, T. B. See also Gatewood, E.
- Johnson, T. H., production and measurement of molecular beams, A., 213.
- Johnson, W. T., jun. See Bell, R. W.
- Johnson & Johnson, substitute for catgut for use in tennis rackets, etc., (P.), B., 310.
- Johnson & Johnson, treatment of rubber emulsion to produce an adhesive, (P.), B., 378.
- Johnsrud, A. L. See Ives, H. E.
- Johnston, A. C., and Hercules Powder Co., preparation of alkyl esters of abietic acid, (P.), B., 936.
- Johnston, C. G., determination of η_{sp} [of blood] by hydrogen electrode and by colorimetric methods, A., 1268.
- Johnston, J., and Jones, E. P., solubility relations of isomeric organic compounds. VII. Mutual solubility of the dinitrobenzenes with the nitroanilines, and of the three chlorobenzoic acids, A., 579.
- Johnston, J. See also Lazzell, C. L., Leopold, H. G., and Steiner, L. E.
- Johnston, J. H. S., surface tension of protein solutions. III., A., 121.
- Johnston, L. M., and Farrell, J. L., manufacture of briquettes, (P.), B., 149.
- Johnston, M. W., and Lewis, H. B., metabolism of amino-acids. I. Changes in nitrogenous constituents of the blood following administration of amino-acids, A., 917.
- Johnston, W. See Caven, R. M.
- Johnston, W. A. See Baldwin, R. S.
- Johnston, W. R., preservative and preservation of yeast therewith, (P.), B., 543.
- Johnston, W. S., Keen, A. W., and Naugatuck Chemical Co., treating solutions [for recovering gummy or plastic substances], (P.), B., 762.
- Johnstone, B. See Wellings, G. A.
- Jolibois, P., Lefebvre, H., and Montagne, P., reversibility of a reaction induced by the electric spark or current, A., 477.
- decomposition of carbon dioxide at low pressure under the action of the electric current, A., 689.
- Joliot, F., resistivity of thin metallic layers obtained by cathodic disintegration, A., 824.
- Joliot, F., and Onoda, T., ionisation curve in pure hydrogen for the α -rays of polonium, A., 1069.
- Joliot, F. See also Curie, (Mlle.) I.
- Jolles, A., urine analysis, A., 320.
- detection of indican by means of alcoholic thymol solution; indicanæmia, A., 662.
- detection of albumin in urine, A., 789.
- Jolley, F. R. See Simon, Ltd., H.
- Joly, J., pleochroic haloes and the age of the earth, A., 215.
- Jona, R. B. See Antoniani, C.
- Jonas, K. G., position of researches on [the constitution of] lignin, B., 363.
- effect of fine division on the copper number of cellulose, B., 743.
- Jones, A. E., use of Mitchell's ferrous tartrate reagent in studying the precipitation of alkaloids by tannin, B., 729.
- Jones, A. S. See Arnold Print Works, and De Göncz, D.
- Jones, B. See Bradfield, A. E.
- Jones, C. R. See Fisher, E. A.
- Jones, D. B., and Csonka, F. A., glutelins. IV. Glutelins of maize (*Zea mays*), A., 1063.
- Jones, D. B., Murphy, J. C., and Nelson, E. M., biological values of certain types of sea food. II. Vitamins in oysters (*Ostrea virginica*), B., 242.
- Jones, D. B., Nelson, E. M., Murphy, J. C. [with Devine, J. P.], biological values of certain types of sea foods. III. Vitamins in clams, B., 586.
- Jones, D. B., and Swartz, F. C., regenerative furnace, (P.), B., 430.
- Jones, D. C., physical properties of acetic anhydride and related substances and their constitutional significance, A., 697.
- Jones, D. C., and Betts, H. F., miscibility relations of acetic anhydride, A., 699.
- Jones, D. O., and Evans, E. J., magnetic rotary dispersion of methyl and propyl alcohols, A., 461.
- Jones, D. W., corrosion of chemical lead, B., 786.
- Jones, E., photographic study of detonation in solid explosives. I. Development of a photographic method for measuring rates of detonation, B., 875.
- Jones, E. C. S. See Earl, J. C.
- Jones, (Miss) E. E. See Hilditch, T. P.
- Jones, E. G. See Dox, A. W.
- Jones, E. M., bleaching composition, (P.), B., 708.
- Jones, E. J., excitation of mercury vapour by positive ions, A., 1299.
- Jones, E. O., and Becker, M. L., thermal dissociation of strontium carbonate, A., 19.

- Jones, E. P. See Johnston, J.
- Jones, E. R., and Bury, C. R., f. p. of concentrated solutions.
- II. Solutions of formic, acetic, propionic, and butyric acids.
- III. Solutions of phenol, A., 128.
- Jones, F. A. See Taylor, A. E.
- Jones, F. E., and Bury, C. R., transport number of the cation in aqueous solutions of nickel salicylate, A., 1097.
- Jones, G., and Josephts, R. C., conductivity of electrolytes. I. Experimental and theoretical study of principles of design of the Wheatstone bridge for use with alternating currents and an improved form of direct-reading alternating-current bridge, A., 595.
- Jones, G., and Kaplan, B. B., equilibrators; device for determination of the distribution ratio of a volatile solute between two miscible solvents, A., 863.
- iodide, iodine, tri-iodide equilibrium and the free energy of formation of silver iodide, A., 954.
- normal potential of the iodine-iodide electrode, A., 1097.
- Jones, G. W., flammability of refrigerants; mixtures of methyl and ethyl chlorides and bromides, B., 428.
- inflammability of automobile exhaust gas, B., 776.
- Jones, G. W., and Perrott, G. St. J., effect of oxygen balance of gelatin dynamites on the gaseous products of detonation, B., 549.
- Jones, G. W. See also Coward, H. F., and Gardner, E. D.
- Jones, H., and Whiddington, R., passage of electrons through hydrogen at low pressures, A., 685.
- Jones, H. A., and Hann, R. M., condensation of rhodanic acids with 5-nitrosatin; 5'-nitro-3-rhodanylidene- $\Delta^{5,3}$ oxindoles, A., 1380.
- Jones, H. A. See also Langmuir, I.
- Jones, H. E., phenol recovery plant avoids waste pollution of streams, B., 434.
- Jones, H. O., determination of sulphur dioxide in sausages and in foods by distillation in a vacuum, B., 347.
- Jones, J. A., properties of nickel steels, with special reference to the influence of manganese, B., 409.
- Jones, J. F., apparatus for adding reagents to water, (P.), B., 214.
- Jones, J. H., King, J. G., and Sinnatt, F. S., reactivity of coke. I. Standardised method for the determination of comparative values, B., 146.
- reactivity of coke, B., 392.
- Jones, J. I. M., Kilby, W., and Standfast Dyers & Printers, Ltd., dyeing [with vat dyes], (P.), B., 86.
- Jones, J. I. M. See also Standfast Dyers & Printers, Ltd.
- Jones, J. L., and Westinghouse Electric & Manufacturing Co., [brazing] solder, (P.), B., 58.
- Jones, L. A., light filters for the isolation of narrow spectral regions, A., 609.
- Jones, L. D., and Sharples Specialty Co., centrifugal separation of substances, (P.), B., 73.
- Jones, L. D. See also Sharples, P. T., and Sharples Specialty Co.
- Jones, L. E., and Heimerdinger, H. M., production of a food product from vegetables containing starch, (P.), B., 283.
- production of bread and other baked goods, (P.), B., 284.
- Jones, L. W., and Fleck, E. E., action of thiocyanogen on ON-disubstituted hydroxylamines and primary amines, A., 993.
- Jones, L. W., and Major, R. T., $\alpha\beta\beta$ -trialkylhydroxylamines, A., 1362.
- Jones, L. W., and Seymour, M. W., action of sodium triphenylmethyl on methoxytrimethylammonium iodide, and of triphenylmethyl halides on trimethylamine, A., 629.
- Jones, (Miss) P., Hall effect in aluminium crystals in relation to crystal size and orientation, A., 9.
- Jones, P. R., and Balfour, Guthrie, & Co., insecticide emulsion, (P.), B., 137.
- Jones, R. N., anomalous magnetic rotation in excited neon, A., 1310.
- Jones, T. G. H., and Smith, F. B., campnospermonol, a ketonic phenol from *Campnospermum brevipedicellatum*, A., 291.
- Jones, T. J., absorption coefficient of slow electrons in mercury vapour, A., 1168.
- Jones, W. I. See Blakey, W.
- Jones, W. J. See Bowden, S. T., and Lloyd, E.
- Jones, W. M., and Evans, E. J., crystal structure of Cu_3Sn and Cu_3Sb , A., 6.
- Jones, W. N. See Haushalter, F. H., Kelly, A., and Taylor, B. S.
- Jones, W. R. D., copper-magnesium alloys. III., B., 754.
- Jonesco-Matiu. See Ionesco-Matiu.
- Jono, W., production of the atomic and molecular rays of sodium and of iodine, A., 213.
- Jono, Y., composition of human epidermis, A., 440.
- Jonsell, S., Jorpes, E., and Sikström, N., determination of the reducing substance in blood, A., 315.
- Joos, G., measurement of residual rays in the visible region of the spectrum, A., 345.
- colour and magnetism of ions, A., 454.
- strong electrolytes and the dependence of conductivity on $P.D.$, A., 1097.
- Joos, G., and Blumentritt, M., behaviour of Debye electrolytes in intense fields, A., 244.
- Jordan, C. N. See Thayer, S.
- Jordan, C. W. See Humphreys & Glasgow, Ltd.
- Jordan, F., [roller] method of plating iron and other metals in the form of sheets or strips, (P.), B., 790.
- Jordan, H., and Du Pont de Nemours & Co., E. I., trisazo-dye and process of making same, (P.), B., 741.
- Jordan, L., and Eckman, J. R., gases in metals. III. Determination of nitrogen in metals by fusion in vacuum, B., 160.
- Jordan, L. See also Kjerman, B.
- Jorissen, W. P., oxalic acid as a standard, A., 262.
- explosions not generally guarded against, A., 961.
- automatic addition of a fluid, A., 985.
- Jorissen, W. P., and Groeneveld, C., reaction regions. XVIII. Velocity of propagation of the reaction in iron-sulphur mixtures, A., 848.
- Jorissen, W. P., and Kayser, G. M. A., reaction regions. XVI. $(\text{NH}_4)_2\text{Cr}_2\text{O}_7\text{-K}_2\text{SO}_4\text{-KCl}$ and $(\text{NH}_4)_2\text{Cr}_2\text{O}_7\text{-Fe-S}$, A., 21.
- reaction regions. XVII. Reaction regions in which a dichromate is the substance supplying oxygen, A., 133.
- Jorissen, W. P., and Starink, H. A., reaction regions. XIX. Reaction regions in which one of the substances is gun cotton, A., 848.
- Jorpes, E. See Jonsell, S.
- Josefson, J., and Wiberg, T. A., manufacture of butter and apparatus therefor, (P.), B., 138.
- Joseph, A. F., characterisation of clay, B., 569.
- Joseph, K. See I. G. Farbenind. A.-G.
- Joseph, R. P., and Schnorr, W. F., [tarnish-resisting] silver alloys, (P.), B., 20.
- Joseph, S. M. See Dennis, I. M.
- Joseph, T. L., Kinney, S. P., and Wood, C. E., production of high-alumina slags in the blast furnace, B., 572.
- Joseph, T. L. See also Kinney, S. P.
- Josephts, R. C. See Jones, G.
- Josephson, K., monoacyl derivatives of quinic acid. I. and II., A., 63, 757.
- [specificity and mode of action of erepsin, trypsin, and trypsin-kinase; specificity of peptidases. II. Comparison of peptide-sugar condensation with the mode of action of erepsin], A., 922.
- influence of substituents in the benzene nucleus on mode of reaction of silver salts of *o*-hydroxycarboxylic acids with acetobromoglucose, A., 1004.
- theory of starch formation, A., 1061.
- synthesis of glucosides and glucose esters of hydroxycarboxylic acids, A., 1120.
- benzoylisopropylidenequinide and benzoylquinide, A., 1134.
- Josephy, B. See Bentler, H.
- Joshi, S. S. See Sane, S. M.
- Joskowiczówna, A. See Weil, S.
- Joslin, H. M. See Frey, R. W.
- Joss, E. J. See Cohen, E.
- Jost, F., and Müller, Karl, purification of gases [for synthesis of ammonia], (P.), B., 748*.
- Jost, W., reaction between bromine and hydrogen in light of different wave-lengths, A., 1338.
- Jostes, F. See Braun, J. von.
- Joszt, R. See Niementowski, S.
- Jonatte, D. See André, E.
- Jovinat, m. p. of mixtures of picric acid and mononitronaphthalene, A., 1085.
- Jovinat. See also Lécorché.
- Jowett, M., calibration of Barcroft's manometer, A., 928.
- Jowett, M., and Brooks, J., effect of metallic salts on the glycolysis and respiration of tissues, A., 793.
- Joyet-Lavergne, P., oxidising and reducing powers of mitochondria, A., 439.

- Joyet-Lavergne, P., relation between glutathione and the intracellular oxidation-reduction potential, A., 442.
- Jozefowicz, E., kinetics of oxidation of organic compounds by bromine. I. Action of bromine on oxalic acid, A., 715.
- Józsa, S., influence of [area of] active surface of a nickel catalyst on the velocity of hydrogenation of oils, B., 646.
- Juchnovski, G. L., preparation of benzene and toluene from technical xylene and from solvent naphtha, B., 844.
- Juday, C. See Birge, E. A.
- Judd, D. B., and Walker, G. K., colour glass standardisation, A., 609.
- Judenit, V. See Milbauer, J.
- Judy, W. H., and Sumet Corporation, metallic composition and its manufacture, (P.), B., 899.
- Jüptner, H. von, complete gas analysis by the simultaneous oxidation of methane, carbon monoxide, and hydrogen, A., 858.
- Jürgens, E. See Dankwort, P. W.
- Jüttner, F., relativistic quantum theory of ideal gases, A., 456.
- Juliard, A., and Silberschatz, S., iodometric determination of ozone and chlorine, A., 978.
- Jumau, L., theory of the lead storage battery, B., 453.
- Jung, A., and Leuthardt, F., influence of buffering capacity on the solubility of uric acid, A., 366.
- Jung, C. J., apparatus for the spraying of molten substances [metals], (P.), B., 452.
- Jung, H., chemical and provincial relations of the younger eruptive rocks of Germany and northern Bohemia, A., 390.
- production of aluminium salts of organic acids, (P.), B., 211.
- Jung, P., manufacture of briquettes, (P.), B., 631.
- Jungkunz, R. See Pritzker, J.
- Jungmann, H. See Lang, C.
- Jungmann, K., and Kolbert, O., manufacture of solid alcoholic solutions of free iodine, (P.), B., 873.
- Jungmann, K. See also Tausz, J.
- Junkersdorf, P. See Bickenbach, W., and Boedeker, A.
- Jupp, L. G., Kon, G. A. R., and Lockton, E. H., condensation of ketones with ethyl acetoacetate, A., 885.
- Juréev, W. J. See Nikitin, N. J.
- Juretzek, H. See Sauerwald, F.
- Jurišić, P. J., importance of ζ -potential in the electro-osmotic transport of water through collodion membranes. Theory of anomalous osmosis, A., 14.
- physical chemistry of resorption, I., A., 916.
- Jurist, A. E., and Christiansen, W. G., analysis and characterisation of neoarsphenamine [neosalvarsan], B., 139, 243.
- Jurling, J. G., and Fabriek van Chemische Producten, manufacture and spinning of derivatives of cellulose and formic acid, (P.), B., 121*.
- Jusa, E. See Gebauer-Fülneegg, E.
- Just, A., manufacture of cathodes for thermionic valves, (P.), B., 163.
- Justin-Mueller, E., de-suinting and scouring of wool, B., 46.
- derivatives of sulphur dyes prepared from indophenols obtained from carbazole and its substitution products, B., 475.
- Juvala, A. See Palomaa, M. H.
- K.**
- K.D.P., Ltd., production of rubber mixings from latex and filling materials, (P.), B., 532.
- K.D.P., Ltd., and Metallbank & Metallurgische Ges. Akt.-Ges., production of rubber mixings, (P.), B., 277.
- Kabay, J., variation in composition of *Aithya* root, A., 1163.
- Kabeshima, H. See Okada, S.
- Kabushiki Kaisha Nihon Seikoshu, manufacture of steel, (P.), B., 451.
- Kaddatz, E., colour-testing device for translucent fluids, (P.), B., 3.
- Kadish, V. H., milorganite—a new fertiliser material, B., 169.
- Kägi, H. See Hartmann, M., and Soc. of Chem. Ind. in Basle.
- Kämpf, A., precipitation of artificial threads, ribbons, films, etc., of viscose, (P.), B., 121*.
- Kageura, N., action of *B. lactis aerogenes* and *B. coli* on hexose-monophosphoric acid, A., 204.
- Kageura, N. See also Nicolai, H. W.
- Kahane, E., coloration anomalies of ferric and alkali thiocyanates, A., 34.
- Kahane, E. See also Lematte, L.
- Kahane, Z. See Pollak, J.
- Kahl, F. See John, H.
- Kahl, L., and Rütgerswerke Aktien-Gesellschaft, Abtg. Planierwerke, production of arc-light electrodes, (P.), B., 130*.
- Kahl, L. See also Rütgerswerke A.-G.
- Kahlbaum Chemische Fabrik G.m.b.H., C. A. F., production of absorbents for carbon dioxide, for use in respirators, etc., (P.), B., 568.
- Kahlbaum Chemische Fabrik G.m.b.H., C. A. F. See also Heyn, M.
- Kahle, H., apparatus for the determination of gas densities by the Bunsen effusion method, A., 1110.
- Kahlenberg, L., and Barwasser, N., absorption and excretion of boric acid in man, A., 1399.
- Kahlenberg, L., and Traxler, R., passage of boric acid and certain salts into fruits and vegetables, A., 926.
- Kahlenberg, L. See also Closs, J. O., and Freuch, S. J.
- Kahn, B. S. See Roe, J. H.
- Kailan, A., and Brabbée, A., velocity of esterification of anisic and gallic acids in ethylene glycol and in glycerol, A., 1333.
- Kailan, A., and Diab, Y. M., velocity of esterification of monoaminobenzoic acids and of pyridine-1- and -2-carboxylic acids in glycol and in glycerol, A., 962.
- Kailan, A., and Krakauer, Emil, velocity of esterification of nitrobenzoic acids in ethylene glycol and of naphthoic acids in glycerol, A., 961.
- Kailan, A., and Olbrich, L., atmospheric oxidation of hydrocarbons, A., 42.
- Kaimer, F. R. See British Thomson-Houston Co., Ltd.
- Kairies, A. See Grunke, W.
- Kaischev, R. See Balarev, D.
- Kaiser, E., sulphur content of various proteins, A., 314.
- Kaiser, H., and Eggensperger, K., determination of essential oils in drugs, B., 767.
- Kaiser, L. See Lange, M.
- Kaiser, O. See Society of Chemical Industry in Basle.
- Kaiser, W. F., treatment of complex raw speiss, B., 126.
- Kaiser-Wilhelm-Inst. für Eisenforschung, purification of metals, (P.), B., 489.
- determining the temperature of gases, (P.), B., 774.
- Kaishio, Y. See Suzuki, K.
- Kakinchi, S., significance of lipins in the oxygen-consuming activity of tissues. I. Oxygen-consuming activity of tissue and the mitochondrial structure, A., 791.
- Kalandyk, S., electric emission of incandescent platinum in an atmosphere of iodine, A., 1298.
- Kalb, L., and Falkenhausen, F. von, oxidation of cellulose in solution. I., B., 153.
- Kalb, L., and Lieser, T. [with Hahn, R., Nevely, F., and Koch, H.], isolation of lignin, A., 743.
- Kalberer, O. E., spectrochemical detection of fruit wine in wine, B., 686.
- Kalberer, O. E. See also Widmer, A.
- Kalkbrenner, E. See Pfeiffer, P.
- Kali-Forschungs-Anstalt G.m.b.H., Kaselitz, F., and Höfer, P., recovery of bromine from iron bromide, (P.), B., 816.
- Kali-Industrie Akt.-Ges., apparatus for crystallising salts, (P.), B., 746.
- Kalischewski, L. See Magidson, O.
- Kalle, K. See Bierich, R.
- Kalle & Co. Akt.-Ges., photographic processes for making diazo-prints, (P.), B., 549.
- varying the tones of photographic diazo-prints, (P.), B., 944.
- Kalle & Co. Akt.-Ges., Schmidt, M. P., and Herrmann, O., manufacture of indigoid vat dyes, (P.), B., 226.
- Kallen, G., fireproof and acid-proof articles, (P.), B., 749.
- Kallmann, H. See Dorsch, K. E.
- Kaloyereas, S., Cruess, W. V., and Lesley, B. E., determination of oil in olives, B., 935.
- Kalpasanov, S. See Skrabal, A.
- Kalsing, H. See Gehlhoof, G.
- Kaltwasser, O. See I. G. Farbenind. A.-G.
- Kalushski, A., influence of sulphur on the nitrogen and phosphoric acid utilisation of plants, A., 1290.
- use of sulphur and rock phosphate [as fertiliser], B., 938.
- Kam, A. J. H., impurities of the atmosphere, B., 694.

- Kambe, K. See Yabuta, T.
 Kambl, E. See Rupe, H.
 Kamei, T., physical properties and chemical composition of the amniotic and allantoic fluids of the embryo chick, A., 542.
 basal metabolism in diseases of the thyroid and the effect of certain therapeutic measures, A., 667.
 behaviour of pyridine, quinoline, and nicotinic acid in the Eck-fistula dog, A., 793.
 Kameyama, N., and Noda, T., electrolytic refining of copper, using complex salt of cuprous chloride. I. and II., B., 573.
 Kameyama, N., and Oka, S., heats of combustion and formation of calcium cyanamide, A., 244.
 Kami, Y., influence of wetting on strength and elasticity of artificial silks, B., 743.
 Kami, Y., and Nakashima, S., transverse sections of artificial silk. II. Changes in section during moistening with water, B., 809.
 Kamienski, B., decomposition potential of zinc sulphate and ferrous sulphate, A., 371.
 potentiometric quantitative analysis, A., 1345.
 Kaminski, F., apparatus for determination of alkaloids in lupins, B., 690.
 Kaminsky, E. See Kurdjumov, G.
 Kamishima, Y., alloy having a high electrical resistance, (P.), B., 198.
 Kamita, K., and Asahi Garasu Kabushiki Kaisha, preventing the weathering (especially clouding, tarnishing, and lustring) of the surface of glass, (P.), B., 711.
 Kamm, E. D., unsaponifiable matter from the stomach oil of *Scymnorhinus lichia*, A., 319.
 Kamm, E. D. See also Heilbron, I. M.
 Kamm, O., Aldrich, T. B., Grote, I. W., Rowe, L. W., and Bugbee, E. P., active principles of the posterior lobe of the pituitary gland. I. Demonstration of the presence of two active principles. II. Separation of the two principles and their concentration in the form of potent solid preparations, A., 554.
 Kammüller, A. See Bunte, K.
 Kamp, W. T. See Rösch, H.
 Kamzolkin, V. P. See Wolkovitch, S. I.
 Kanao, S., and Inagawa, S., synthesis of hydroxyamino-acids, A., 1022.
 action of Grignard reagent on α -aminodicarboxylic acids, A., 1121.
 Kanata, K., permeability of colloidal substances to gases, A., 1183.
 Kanda, R., cyaniding apparatus for treating gold ores, (P.), B., 609.
 Kandilarov, G. G., qualitative precipitation of phosphoric acid with lead salts, A., 144.
 gravimetric determination of fluorine as calcium fluoride, using a membrane filter, A., 1204.
 Kaneko, H. See Minatoya, S.
 Kanevskaia, S. J., derivative of δ -benzamidovaleric acid, and the synthesis of putrescine, A., 61.
 synthesis of benzoylcadaverine, A., 61.
 Kangro, W., adiabatic calorimeter for high temperatures, A., 729.
 Kanô, N., determination of permanganic and arsenious acids, A., 264.
 Kansas City Gasoline Co. See Wellman, F. E.
 Kantawala, B. H., manufacture of wool substitutes, (P.), B., 706.
 Kapar, P. L. See Bhatnagar, S. S.
 Kapeller, R. See Fromm, E.
 Kapfhammer, J., and Bischoff, C., *l*-hydroxyproline and *l*-proline as sugar formers; metabolic investigations with dogs dosed with phloridzin, A., 669.
 Kapfhammer, J., and Eek, R., *l*-hydroxyproline and *l*-proline, A., 526.
 Kapfhammer, J., and Spörer, H., preparation of *l*-histidine from protein, A., 657.
 Kapitzka, P., specific resistance of bismuth crystals and its change in strong magnetic fields and some allied problems. I. Growth of crystal rods with a definite orientation of the crystal planes and the specific resistance of bismuth crystals. II. Method and apparatus for observing the change of resistance of bismuth in strong magnetic fields. III. Change of resistance of bismuth and the time lag in magnetic fields, A., 825.
 Kaplan, B. B. See Jones, G.
 Kaplan, D. See Bobtelsky, M.
 Kaplan, F. See Schönberg, A.
 Kaplan, J., properties of atomic hydrogen, A., 3.
 continuous spectrum of hydrogen, A., 209.
 excitation of the auroral green line in active nitrogen, A., 566.
 production of active nitrogen, A., 604.
 theory of the excitation of spectra by atomic hydrogen, A., 807.
 duration of atomic hydrogen, A., 1303.
 Kaplan, J., and Cario, G., active nitrogen, A., 683.
 Kappanna, A. N., kinetic salt effect. I. Reaction between sodium monochloroacetate and sodium thiosulphate, A., 962.
 rôle of phosphates in oxidation of dextrose, A., 1194.
 Kappeler, H. See Haller, P.
 Kappeler, R., and Kutschera-Aichberger, H., calcium content of heart muscle, A., 540.
 Kappen, H., examination and manuring of acid mineral soils, B., 342.
 Kappen, H., and Fischer, B., ionic exchange in zeolitic silicates through the participation of hydrolytically dissociated salts. II. Natural silicates, B., 892.
 Kappler, P. See Marx, E.
 Kapuscinski, W. See Ornstein, L. S.
 Karajunis, G. See Fajans, K.
 Karas, F., determination of heat of combustion with Fery's calorimeter, A., 368.
 Karashima, J., glycocyamase, A., 1055.
 Karasiewicz, S., influence of sodium carbonate and calcium chloride on the acidity of the sap of the maize plant. II., A., 1061.
 Karassik, W. M., pharmacology of hydrogen cyanide in cold-blooded animals. I. Rôle of lung and skin respiration in the lightening of the colour of venous blood during poisoning by hydrogen cyanide. II. Effect of certain factors on oxidation in hydrogen cyanide poisoning, A., 920.
 Karch, H. S. See Hall, R. E.
 Karcher, J. C., and Western Electric Co., Inc., increasing the permeability of silicon steel, (P.), B., 676.
 Karcher, J. C. See also Western Electric Co., Inc.
 Kardashev, K., elmseed oil, B., 902.
 Karell, A. See Bodnár, J.
 Kargin, V. A. See Kurbatov, J., Rabinovitsh, A. J., and Vassiliev, A.
 Kargl, R., influence of over-saturation [in the carbonatation process] on the precipitation of some acids in presence of magnesia and alkalis, B., 280.
 Karkutsch, G. See Siemens-Schuckertwerke G.m.b.H.
 Karlström, A. M. R., recovery of [paper pulp] fibres from liquids, (P.), B., 638.
 Karnop, R., and Sachs, G., mechanical properties of aluminium alloys, B., 675.
 Karolus, A. See Telefunken Ges. für drahtlose Telegraphie m.b.H.
 Karpen, V., cells with identical unchangeable electrodes, A., 23.
 cells with unchanged electrodes [K cells] and Carnot's principle, A., 246.
 cells [with unattackable electrodes] contradicting the second principle of thermodynamics, A., 1098.
 Karpen & Bros., S. See Carter, C. B.
 Karplas, M. See Schlenk, W.
 Karplus, H., Bachmann, W., and De Haen Akt.-Ges., manufacture of boiler composition, (P.), B., 732.
 Karpov, B. C., successive treatment of mined platinum from Tagil with dilute aqua regia, A., 865.
 separation of iridium and rhodium by fusion with bismuth, A., 983.
 Karpov, B. G. See Grigoriev, A. T., and Shemtschushni, S. F.
 Karpov, P., blood stains, A., 1046.
 Karrer, P., colouring matters of flowers, A., 1378.
 Karrer, P., and Chemische Fabrik vorm. Sandoz, preparation of cotton fibres [for direct dyeing], (P.), B., 50*.
 preparation of [immunised] cotton fibres, (P.), B., 601*.
 Karrer, P., and Dalla Vedova, M., racemisation of amino-acid derivatives, A., 637.
 Karrer, P., and Freuler, R., enzymic decomposition of α - and β -glycerophosphoric acids, A., 328.
 Karrer, P., and Helfenstein, A., constitution of the monomethyl ether of phloroglucylaldehyde, A., 65.
 existence of optically active carbonium salts, A., 1240.

- Karrer, P., and Kwong, S. C., affinity of amidated and pyridinated fibres for acid substances, B., 445.
- Karrer, P., and Lichtenstein, N., hydroxy-carbonyl compounds. IX. Constitution of cotoin and isocotoin; isohydrocotoin, A., 1248.
- Karrer, P., and Link, K. P., acyl derivatives of quinic acid, A., 63.
- Karrer, P., and Salomon, H., vegetable colouring matters. VI. Colouring matter from saffron. II. and III., A., 644, 869.
- Karrer, P., and Schubert, P., boundary potential of textile fibres in water, A., 246.
- polysaccharides. XXXVII. Behaviour of various celluloses towards snail cellulase, A., 276.
- Karrer, P., and Schwarz, K., vegetable colouring matters. IX. Yellow colouring matter from red rose; organic acids from several flowers, A., 1255.
- Karrer, P., and Widmer, R., vegetable colouring matters. VII. Lycopin, A., 1016.
- vegetable colouring matters. VIII. Constitution of monardalin, A., 1255.
- Karrer, P. See also Bloch, B., and Faust, O.
- Karrer, W., and Hoffmann La Roche Chemical Works, manufacture of quinine salts of hydroxyphenylarsinic acids, (P.), B., 548*.
- Karrick, L. O., distillation of carbonaceous material, (P.), B., 218.
- Karssen, A., Röntgen rays and organic chemistry, A., 392.
- Karstens, A. See Diels, O.
- Karström, H. See Viitanen, A. I.
- Kartashev, A., action of nitric acid on phenol in dilute aqueous solution. I. Mechanism of nitration of phenol. II., A., 749.
- Kartashev, A. See also Kukharensko, I. A.
- Kartashev, V., and Farine, G., dyeing of [cellulose] acetate silk, B., 812.
- Kás, V., physiological behaviour of moist, air-dried, and repeatedly dried soils, B., 26.
- physical properties of wet, dried, and repeatedly dried soils, B., 537.
- Kasai, K. See Suzuki, T.
- Kasama, K. See Ueda, Y.
- Kasanski, B. A. See Zelinski, N. D.
- Kasarnovski, J., salt-like hydrides. IV., A., 595.
- Kasarnovski, J. See also Proskurnin, M.
- Kashtanov, L. See Stadnikov, G.
- Kaseltz, F. See Kali-Forschungs Anstalt G.m.b.H.
- Kasiwagi, I., derivatives of furfuraldehyde. V. Action of organo-magnesium compounds on furyl ketones; constitution of furylidenemethyl ethyl ketone, A., 183.
- Kassel, L. S., distribution of energy in molecules, A., 347.
- homogeneous gas reactions. I., A., 372.
- velocity coefficient for bimolecular reactions in solution, A., 598.
- region of existence of unimolecular reactions, A., 715.
- homogeneous gas reactions. II. Introduction of quantum theory, A., 960.
- Kassler, H. See Lederer, O.
- Kassler, J., colorimetric determination of molybdenum in steel, B., 55.
- separation of molybdenum from vanadium in steel, B., 674.
- Kassner, G., appearance of visible impurities in chemical preparations with lapse of time, A., 141.
- Kast, H., and Selle, H., duration and length of the explosion flames of various explosives, B., 693.
- Kast, L. See Killian, J. A.
- Kast, W., limiting surface effect in anisotropic liquids, A., 947.
- Kasten, E. See Pringsheim, H.
- Kastler, A. O., influence of phloridzin on inorganic metabolism, A., 548.
- Kataoka, T., anthocyanin pigments of "morning glory." II., A., 1256.
- Katayama, I., significance of changes in the composition of the blood and urine after ingestion of dextrose, A., 793.
- blood glycolysis. I. General consideration of glycolysis in relation to the blood-cells, and the production of lactic acid and carbon dioxide, A., 1268.
- Kathner, A. T., annealing and heat-treating furnace, (P.), B., 527.
- Kato, K. See Ueda, Y.
- Kato, S., carbon dioxide of the blood, A., 536.
- combination of carbon dioxide with oxyhaemoglobin, A., 536.
- Kato, S., Katsu, Y., and Yabuki, K., [influence of] salt content on aggregation of haemoglobin in solution, A., 587.
- Kato, T., systematic detection of the rare elements, A., 726.
- Kato, Y., and Murakami, T., theory of electrolytic deposition of chromium from chromic acid solutions, A., 714.
- Kato, Y., Murakami, T., and Saito, S., preparation of chromium plating solution; physicochemical studies of the solution; phenomena taking place during electrolysis, B., 576.
- Katrandjiev, K. See Nicolas, E.
- Katsch, G., and Metz, E., detection of homogentisic acid in serum in alkaptonuria, A., 790.
- Katscher, E. See Fuchs, K.
- Katschioni-Walther, L. See Sørensen, S. P. L.
- Katsu, Y., activity theory of Ghosh and of Debye and Hückel for strong electrolytes, A., 478.
- method of measuring the activity of alkali metal ions in a solution, A., 478.
- activity of potassium and sodium chlorides in aqueous solution, A., 478.
- method of determining chlorine-ion concentration, A., 478.
- combination of glycine and chlorine ion, A., 478.
- temperature coefficient of the electrode potential of 0.1N-calomel electrode, A., 481.
- Katsu, Y. See also Kato, S.
- Katsuki, D. See Talbert, G. A.
- Kattwinkel, R., determination of aromatic and unsaturated hydrocarbons in petroleum spirit by means of sulphuric acid, B., 78.
- cannel and pseudocannel coals, B., 145.
- Katz, J. R., X-ray diagrams of liquids, and the shape and arrangement of the molecules in the liquid state, A., 464.
- close agreement between the X-ray spectra of a substance in the liquid and liquid crystalline states, A., 1312.
- Katz, J. R., and Samwel, P. J. P., form of molecules of cellulose and polymerised substances, A., 937.
- Katz, J. R., and Selman, J., influence of shape and polarity of molecules on the X-ray spectrum of liquids. II. Occurrence of two amorphous rings in substances, the molecules of which contain several equal groups or parts, A., 222.
- Katz, M. See Whitby, G. S.
- Katz, S. H., and Trevert, H. W., carbon monoxide in two large garages, B., 149.
- Katzenelbogen, S., and Wohlers, H., serum-lipase, its determination by the stalagmometric method, significance, and clinical value, A., 196.
- Kauffman, H. L., efficient design and operation of absorption towers [for gasoline], B., 44.
- Kauffmann-Cosla, O., action of ions on the metabolism of sugars, A., 668.
- Kauffmann-Cosla, O., and Zörkendörfer, R., effect of Karlsbad mineral water on diabetes mellitus, A., 1273.
- Kaufner, F. See Wacker Ges. f. elektrochem. Ind. G.m.b.H., A.
- Kaufman, J. S. See Mackey, J. C.
- Kaufman, L. E., composition of chevkinite, A., 611.
- Kaufmann, A., determination of the lime requirement of soils on the basis of laboratory and vegetation experiments, B., 937.
- Kaufmann, C., and Dunkel, W., fat metabolism and oestrus hormone of the corpus luteum, A., 800.
- Kaufmann, E., two-colour colorimetry, A., 1292.
- Kaufmann, H. P., formation of thiazole derivatives from thiocyanates, A., 653.
- testing oleic oils by the thiocyanate method, B., 718.
- determination of the saturated fraction of fats by means of the thiocyanogen value, B., 824.
- Kaufmann, H. P. See also I. G. Farbenind. A.-G.
- Kaufmann, W. E. See Allen, E. R.
- Kauko, Y., rate of absorption of sodium hydroxide in the decomposition of straw at ordinary temperature, B., 184.
- Kaul, H., analysis of fluid extract of ergot, B., 912.
- Kaupp, E. See Eisenhut, O., and Glocker, R.
- Kautsky, H., reduction of carbonic acid, A., 1342.
- Kautsky, H., and Hirsch, A., di- and tetra-substituted siloxens, A., 495.
- Kautsky, H., and Thiele, Heinrich, hydroxysiloxens, A., 854.
- Kautz, C. F., and Robinson, A. L., hydrolysis of sucrose by hydrochloric acid in presence of alkali and alkaline-earth chlorides, A., 598.
- Kautzsch, F., influence of electrostatic fields on dielectric constants, A., 347.

- Kauwertz, H., device for mixing liquids in variable proportions, (P.), B., 176.
- Kaveler, H. H., and Monroe, C. J., solubility of aluminium bromide in carbon disulphide, A., 1181.
- Kavina, J., decomposition of silicates by strontium salts in metals, A., 859.
- Kawai, K., preparation of concentrate of cod-liver oil rich in vitamin-A and other active principles, (P.), B., 273.
- Kawai, S. See Kumagai, T.
- Kawakami, K. See Nakamiya, Z.
- Kawakami, M., heat of mixing of metals, A., 21, 244*.
- Kawakami, Y., lathering power of mixed sodium soap, B., 200.
- Kawamura, J. [with Fujita, N.], chemical constituents of the fruit of *Ginkgo biloba*. 1., A., 1291.
- Kawashima, S., effect of thyroid gland preparation, ovariectomy, and removal of testes on the sugar-excretion threshold, A., 800.
- Kawata, S. See Ishino, M.
- Kay, H. D., phosphates of mammalian tissues, A., 796.
- Kay, H. D., and Byrom, F. B., blood-phosphorus in health and disease. I. Distribution of phosphorus in human blood in health, A., 438.
- Kay, H. D., and Marshall, P. G., phosphorus compounds of milk. IV. Presence of adenine nucleotide in milk, A., 542. second protein (livetin) of egg-yolk, A., 1271.
- Kay, H. D. See also Brain, R. T., and Byrom, F. B.
- Kay, J. H. See Hall, D.
- Kay, W. B. See Harkins, W. D.
- Kaya, S., magnetisation of single crystals of nickel, A., 1081.
- Kaya, S., and Masiyama, Y., magnetic properties of single crystals of nickel, A., 111.
- Kaya, S. See also Honda, K.
- Kayasth, R. N. See Annett, H. E.
- Kaye, G. W. C., and Higgins, W. F., thermal conductivities of certain liquids, A., 114.
- Kayser, G. M. A. See Jorissen, W. P.
- Kaziro, K., condensation of keto-cholanic acids. I. Condensation with furfuraldehyde, A., 644. bile acids. III. Effect of bile acids on the protein metabolism of the rabbit; antiseptic effect of bile acids in the rabbit intestine, A., 793.
- Keane, A. D., and Westinghouse Electric & Manufacturing Co., tilting-hearth tray furnace, (P.), B., 412.
- Keane, A. F. See Semet-Solvay Co.
- Keane, J. See Ryan, H.
- Keane, J. C., McCalip, M. A., and Paine, H. S., effect of p_H on lime salts, and character of colloids in filtered juice from cane muds, B., 540.
- Keane, J. C. See also Paine, H. S.
- Keay, H. O., and Laurentide Co., Ltd., abrasive cement, (P.), B., 16*.
- Keckek, A. A., continuous treatment of light oil products, B., 559.
- Keck, C. H., propellant powder, (P.), B., 38, 70.
- Keeler, E. A. See Smith, I. B.
- Keen, A. W. See Johnston, W. S.
- Keen, B. A., mechanical analysis [of soils], national and international, B., 583.
- Keen, B. A., and Coutts, J. R. H., "single-value" soil properties: significance of certain soil constants, B., 905.
- Keenan, R. L. See Sheppard, S. E.
- Keene, A. D., and Westinghouse Electric & Manufacturing Co., electric furnaces, (P.), B., 899.
- Keenen, F. G., and France, W. G., adsorption at crystal-solution interfaces. 11. Individual macroscopic potassium alum crystals grown in the presence of gelatin and dyes, A., 472.
- Keeney, R. M., annealing of non-ferrous metals in the electric furnace, B., 410.
- Keese, H. See Blanck, E.
- Keeser, E., causes of the differences in pharmacological actions of optical isomerides, A., 547.
- Keeser, E., and Keeser, I., detection of caffeine, morphine, and barbituric acid derivatives in the brain [following intravenous injection]; problem of sleep. II., A., 326.
- Keeser, I. See Keeser, E.
- Keesom, W. H., thermal expansion at low temperatures of metals crystallising in regular systems, A., 9. m. p. curve of helium and Nernst's heat theorem, A., 592.
- Keesom, W. H., and Horst, (Miss) van der, fundamental pressure-coefficient of helium, A., 697.
- Keesom, W. H., and Wolfke, M., two different liquid states of helium, A., 469, 696.
- Keesom, W. H. See also Nijhoff, G. P., and Wolfke, M.
- Keovil, C. S., and Lewis, W. K., dehumidification of air, B., 839.
- Kegel, K., apparatus for measuring sp. gr., adapted for determining the ash or mineral content of coal or other samples, (P.), B., 560.
- Kehr, E. F. See Walton, D. C.
- Kehren, M., and Stommel, H., volumetric determination of sulphates in water by Bahrdt's method, B., 38.
- Keil, F. See Skita, A.
- Keil, W., β -oxidation of δ -aminovaleric acid, A., 668.
- Keimatsu, S., and Suganuma, S., synthesis of physostigmine ethyl ether, A., 1030.
- Keine, W. E., and Allis-Chalmers Manufacturing Co., crusher, (P.), B., 175.
- Keiser, (Miss) M. E. See Menzies, R. C.
- Keith, H. R. See Cooke, J. V.
- Kelemen, J. von. See Leinzinger, M. von.
- Kellaway, C. H., Fairley, N. H., and Williams, F. E., filterability of hydatid "antigens," A., 1323.
- Kelleher, P. J., battery composition, (P.), B., 864.
- Keller, A. T., and Bethlehem Steel Co., open-hearth furnace, (P.), B., 788.
- Keller, C. H., and Minerals Separation North American Corporation, froth-flotation concentration of ores, (P.), B., 609.
- Keller, F., Schnitzspahn, K., and Grasselli Dyestuff Corporation, solid diazo-salts, (P.), B., 635*.
- Keller, K., filter system [for the removal of small quantities of fine solids from large volumes of liquid], B., 319.
- Keller, K., and Klempt, W., determination of small quantities of carbon monoxide and methane in mixtures of nitrogen and hydrogen, B., 813.
- Keller, O., non-alkaloidal constituents of ipecacuanha, A., 335.
- Keller, R., charge and particle size, A., 584. molecules and ions in plasma, A., 785.
- Keller, T. See Bencan.
- Keller, T. P. See Beaver, D. J.
- Keller, W. See György, P.
- Kellermann, K., and Peetz, E., adsorption processes in flotation, B., 411.
- Kellett, E. G. See Chattaway, F. D.
- Kelley, C. P. See Lawrence Leather Co., A. C.
- Kelley, F. C., grain growth in metals caused by diffusion, A., 830.
- Kelley, F. C., and General Electric Co., joining of metals, (P.), B., 161.
- Kelley, G. L., and Budd Wheel Co., increasing the elasticity of metal articles, (P.), B., 413.
- Kelley, H. W., Wolfe, W. D., and United Shoe Machinery Corporation, treatment [neutralisation] of rubber latex [containing ammonia], (P.), B., 132.
- Kelley, K. K. See Parks, G. S.
- Kelley, W. V. D., colour photography, (P.), B., 770.
- Kelley, W. V. D., Tronolone, D., and Kelley Color Laboratory, Inc., colour photography, (P.), B., 770.
- Kelley Color Laboratory, Inc. See Kelley, W. V. D.
- Kelliher, F. H., production of carbon dioxide, (P.), B., 632.
- Kellner, J., lead acetate for glycerin determination by the dichromate method, B., 439.
- Kellner, F. and Flothman G.m.b.H., reversing apparatus for gas, air, and waste-gas valves of gas-fired furnaces, e.g., regeneratively heated coke ovens, metallurgical furnaces, etc., (P.), B., 249.
- Kellogg, F. See McBain, J. W.
- Kelly, A., Taylor, B. S., and Jones, W. N., ageing of stretched rubber, B., 309.
- Kelly, C. I., petrol engine lubricants and lubrication, B., 290.
- Kelly, F. C. See Orr, J. B.
- Kelly, J. W. See Black, O. F.
- Kelly, M. W. See Thomas, A. W.
- Kelly, R. G., and Pinner, M., cholesterol content of sputum, A., 1049.
- Kelly, T. D., emulsions to be used as shaving creams, antiseptic ointments, or liniments, (P.), B., 285. treating oils, fats, emulsions, etc., (P.), B., 647. treatment of coal, peat, lignite, shale, etc., with alkaline solvents, (P.), B., 662. production of an alcoholic stimulant, (P.), B., 797.
- Kelly, T. H., [malleable] alloys, (P.), B., 128.
- Kelly, W. J., manufacture of an accelerator for the vulcanisation of rubber, (P.), B., 238.

- Keltch, A. K. See Gaebler, O. H.
- Kemble, E. C., and Jenkins, F. A., quantitative test of Hund's theory of doublet bands of the OH type, A., 1308.
- Kemet Laboratories Co., Inc., manufacture of thorium alloys, (P.), B., 20.
- production of beryllium; production of metals by electrolysis, (P.), B., 412.
- Kemet Laboratories Co., Inc. See also Bagley, G. D., and Sarbey, M. D.
- Kemikal, Inc. See Mellanov, I. S.
- Kemmerer, G., and Hallett, L. T., micro-determination of carbonate carbon [in lake water], B., 70.
- Kemmerich, W. E., apparatus suitable for the gradual production of gases, (P.), B., 447.
- Kemmler, A., manufacture of chamois-tanned leather, (P.), B., 206*.
- Kemp, A. R., and Bell Telephone Laboratories, Inc., production of insulating material [from vulcanised rubber], (P.), B., 204.
- Kemp, A. R., Bishop, W. S., and Lackner, T. J., direct determination of rubber in soft vulcanised rubber, B., 377.
- Kemp, A. R., and Western Electric Co., Inc., insulating materials [for conductors of submarine cables], (P.), B., 900.
- Kemp, A. V. See Wellman Smith Owen Engineering Corporation, Ltd.
- Kemp, C. N., X-ray examination of coal sections, B., 916.
- Kemp, C. N., and Thomson, J. L., apparatus for separating solid materials by the float and sink method, (P.), B., 144.
- Kemp, W. W., reducing materials by heat; producing combustible gas, (P.), B., 662.
- Kemp, W. W. See also Frank, F.
- Kempf, A. See Sunder, C.
- Kempf, L. W. See Archer, R. S.
- Kempf, R., modern methods of testing paints, etc., for weathering and rust-preventive properties, B., 578.
- Kempf, R. See also Galecki, A., and Maass, E.
- Kempster, H. L. See Hogan, A. G.
- Kempter, F., production of viscose, (P.), B., 121*.
- Kemula, W. M., preparation of pure methane and ethane, A., 1350.
- Kendal, J., and Harrison, L. S., compound formation in ester-water systems, A., 1325.
- Kendall, E. C., and Loewen, D. F., mechanism of oxidation-reduction potential. I. Oxidation-reduction potential of cysteine and cystine, A., 958.
- reducing power of cysteine, A., 1122.
- Kenilworth Manufacturing Co., Ltd. See Lawrence, H. Le V.
- Kennard, D. C. See Bethke, R. M.
- Kennard, E. H., Heisenberg's indetermination principle, A., 456.
- Kennard, R. B., mean free path of the alkali [metal] ions in different gases, A., 453.
- Kennaway, E. L. See Barry, G., and Pourbaix, Y.
- Kennedy, A. L. See Plastic, Inc.
- Kennedy, A. R. See Thorne, P. C. L.
- Kennedy, C., and Palmer, L. S., fundamental food requirements for growth of the rat. III. Yeast and yeast fractions as a supplement to synthetic rations. IV. Coprophagy as a factor in the nutrition of the rat, A., 555.
- Kennedy, C. See also Palmer, L. S.
- Kennedy, H. T., determination of sulphur in volatile fuels, B., 559.
- Kennedy, H. T., and Meyers, C. H., critical temperature measurements on carbon dioxide in small capillaries, A., 1315.
- Kennedy, J., regenerative reversing furnace, (P.), B., 319.
- Kenner, J., and Turner, Harold A., molecular configurations of polynuclear aromatic compounds. VIII. 6:6'-Dimethoxydiphenic acid, A., 1244.
- Kenner, J. See also Earl, J. C., Jackson, J. G., and McAlister, F. B.
- Kent, W. L., behaviour of metals and alloys during hot-forging, B., 410.
- Kentish, W. S. See Gibson, C. S.
- Kent-Jones, D. W., chemistry of bread, B., 463.
- Kent-Jones, D. W., and Amos, A. J., refractive indices of aqueous and alcoholic extracts of flour, B., 282.
- Kent-Jones, D. W. See also Chitty, C. W.
- Kenty, C., recombination of argon ions and electrons, A., 1300.
- Kenty, C., and Turner, L. A., surface layers produced by activated nitrogen, A., 1298.
- Kenyon, J. See Edwards, O. K., Gaythwaite, W. R., and Ger-rard, W.
- Keohan, W. F. See French, R. W.
- Kerlevo, A. See Raquet, D.
- Kermack, W. O., and Slater, R. H., preparation of taurine in considerable quantity, A., 49.
- syntheses in the indole series. II. 5:6-Benz-4-carboline and its derivatives, A., 302.
- syntheses in the indole series. III. Theory of anhydronium base formation and constitution of methosulphates; fluorescence of 5:6-benz-4-carboline and its derivatives, A., 650.
- Kermode, J. J., maintaining the temperature of [fuel] oil within predetermined limits, (P.), B., 807.
- apparatus for burning liquid fuel, (P.), B., 920.
- Kern, J., and Du Pont de Nemours & Co., E. I., basic dye, (P.), B., 255.
- manufacture of modified basic dyes, (P.), B., 293.
- Kern, J. W. See Adams, R.
- Kern, L., manufacture of chamotte materials, (P.), B., 368.
- manufacture of ceramic products, (P.), B., 448.
- Kern, W. See Battagay, M.
- Kernot, J. C., and Knaggs, J., determination of diamino-nitrogen in the products of hydrolysis of proteins, A., 660.
- gelatins of different origin as emulsifying agents, B., 457.
- Kerr, H. W., nature of base exchange and soil acidity, B., 618.
- Kerr, H. W. See also Tottingham, W. E.
- Kerr, R. H., moisture content of oleomargarine, B., 766.
- Kerr, S. E., effect of insulin and of pancreatectomy on distribution of potassium and phosphorus in blood, A., 925.
- Kerr, W. R., potassium bisulphate fusions [in analysis of aluminous refractories], B., 642.
- Kerr-Lawson, D. E., pleochroic haloes in biotite from near Murray Bay, P.Q., A., 940.
- Kerschbaum, E. See Mayr, C.
- Kerschbaum, H., duration of Stark effect in hydrogen and nitrogen, A., 212.
- Kershaw, A. See Hodgson, H. H.
- Kershaw, W. See Bleachers' Assoc., Ltd.
- Kertész, Z. I., development of mutase action in germinating barley, A., 1053.
- stimulating effect [of sugars] on the invertase of *Penicillium glaucum*. I and II, A., 1063, 1291.
- titration of bleaching powder with nitrite solution, B., 602.
- Kertész, Z. I. See also Euler, H. von.
- Kesler, C. C., Lowy, A., and Faragher, W. F., purification of abietic acid from rosin, and preparation of some of its derivatives, A., 60.
- Kesler, C. C., and Pine Institute of America, Inc., manufacture of rosin soap, (P.), B., 455.
- Kesseler, H. See I. G. Farbenind. A.-G.
- Kesseling, J. See Wagner, Hans.
- Kessler, A. S., improvement of half-wool fibrous material which cannot be felted, (P.), B., 227.
- Kessler, D. W., and Sligh, W. H., physical properties of limestone used for building in the United States, B., 642.
- Kesting, W., detection of small differences in the hydrogen-ion concentration of solutions, A., 606.
- reaction of malononitrile with α -naphthaquinone, A., 1015.
- Ketov, N. M., burette for titration, A., 985.
- Keuscher, W. See Jacobi, W.
- Key, A., and Dutt, P. K., action of diazo-salts on aromatic sulphonamides. II. Mechanism of the reaction and constitution of the diazosulphonamides, A., 1237.
- Key, A. See also Dawson, H. M.
- Key, K. M. See Coward, K. H.
- Keyes, D. B., method of fractionating natural gasoline, B., 217.
- Keyes, D. B., Sonkup, R., and Nichols, W. A., jun., design of fractionating columns, B., 429.
- Keyes, D. B., Swann, S., jun., and Hoerr, H. W., conductivity of organic solvents, B., 822.
- Keyes, D. B., Swann, S., jun., Klabunde, W., and Schick-tanz, S. T., electrodeposition of aluminium, B., 862.
- Keyes, D. B., and United States Industrial Alcohol Co., obtaining absolute alcohol, (P.), B., 666*.
- Keyes, D. B. See also United States Industrial Alcohol Co.
- Keyes, F. G., Sutherland's viscosity constant and its relation to the molecular polarisation, A., 11.
- Keyes, F. G., and Burks, H. G., equation of state for binary mixtures of methane and nitrogen, A., 588.
- Keyes, H. E. See Wartman, F. S.
- Keys, D. A., excitation of the auroral green line in discharge tubes, A., 209.

- Keyworth, C. M., reserve salts [in textile printing], B., 566.
 Keyworth, C. M. See also Jamieson, A. R.
 Kezer, A. See Sackett, W. G.
 Kharasch, M. S., manufacture of water-soluble, metallic, organic compounds, (P.), B., 548*.
 production of alkyl mercuric sulphur compounds, (P.), B., 654.
 Khartschev, N. See Fabriques de Prod. Chim. "Kala" Soc. Anon.
 Khouri, J., determination of oxalic acid as urea oxalate in the fluids of the organism, A., 96.
 determination of oxalic acid in blood, urine, etc., A., 316*.
 Khourine, A., treatment of hydraulic cement, (P.), B., 93.
 Kiam, E., and Collins, M. G., alloy, (P.), B., 198.
 Kichlu, P. K., regularities in the spectrum of ionised neon, A., 338.
 first spark spectrum of krypton, A., 808, 1295.
 Kichlu, P. K., and Acharya, D. P., active nitrogen, A., 680.
 Kichlu, P. K. See also Saha, M. N.
 Kiczales, S., purification of alcohol for the preparation of alcoholic potassium hydroxide, B., 481.
 Kiech, V. C., and Luck, J. M., determination of carbamide and amino-acid nitrogen in animal tissues, A., 788.
 effect of insulin on protein metabolism, A., 1058.
 Kiehl, S. J., and Hart, D., reduction of niobic acid. I., A., 846.
 oxidation potential of the quinquevalent-tervalent niobium system. II., A., 1192.
 Kiehl, S. R., evaluation of the kauri-butyl alcohol solvency test [for varnish thinners], B., 23.
 Kiel, W., derivatives of tetramethylenediamine, pyrrolidine, and γ -aminobutyric acid, A., 622.
 Kienle, R. H. See British Thomson-Houston Co., Ltd.
 Kienzle, A. E., manufacture of fodder from sugar cane, (P.), B., 67.
 manufacture of substances from sugar cane for use in the preparation of food and beverages, (P.), B., 67.
 Kierzik, L., constitution of Grignard's organo-magnesium compounds. I., A., 279*.
 Kiesel, A., protoplasm. IV. Plastin of *Myxomycetes* and its alleged ageing, A., 803.
 Kiesel, A., Belozerski, A., and Skvorzov, S., chemical characterisation of proteins in pure races, A., 560.
 Kiesel, A., and Charitonova-Cholodkovska, A., wheat proteins, A., 559.
 Kieser, H., photolysis of medium-free silver bromide (determination of silver), A., 1339.
 Kieser, K., error in sulphide-toned images, B., 212.
 Kiesgen, J. See Hirsch, Paul.
 Kikawa, K., adsorption of pepsin, A., 551.
 Kikuchi, S., diffraction of cathode rays by mica, A., 1174.
 Kikuchi, S. See also Nishikawa, S.
 Kikuchi, U. See Imori, S.
 Kilby, W. See Jones, J. I. M., and Standfast Dyers & Printers, Ltd.
 Kilduffe, R. A., and Springer, E. G., effect of blood preservatives on urea determination, A., 539.
 Killiani, H., sugars. VIII., A., 741.
 Killewald, F. See Gewerkschaft Burbach.
 Killian, J. A., antiketogenic influence of insulin in diabetes mellitus, A., 799.
 Killian, J. A., Patterson, M. B., and Kast, L., experimental anaemia produced by *Clostridium Welchii*; chemical analysis of the blood, A., 543.
 Killian, J. A. See also Myers, F. C., and Osanto, M.
 Kilmarnock Engineering Co., Ltd., Shaw, W., and Williamson, J. S., drying apparatus, (P.), B., 506.
 Kilp, W., and Lampe, B., determination of fusel oil in alcoholic fluids [low-grade wines], B., 908.
 Kilp, W. See also Lampe, B.
 Kilpatrick, M., jun., primary salt effect in a zero-type reaction, A., 374.
 Kimball, A. L., and Lovell, D. E., internal friction in solids, A., 116.
 Kimber, H. A., pulveriser, (P.), B., 2.
 Kimberly-Clark Co. See Mahler, E.
 Kimishima, T., reactions of aniline and its homologues in accelerating vulcanisation, B., 61.
 Kimmich, K. See Küster, W.
 Kimura, G. See Ishikawa, F.
 Kimura, K., and Takahashi, H., effect of insulin on the metabolism of striped muscle, A., 1058.
 Kimura, K. See also Tsujimoto, M., and Ueda, Y.
 Kimura, M., a fine quantum analysis of certain terms of thallium I., A., 1066.
 Kimura, M., and Takewaki, M., limits of ultra-violet transmission of certain inorganic compounds, A., 1073.
 Kimura, S. See Nishimatsu, I.
 Kimura, W., components of unsaturated acids of chrysalis oil, A., 736.
 Kimura, Y., urine of carcinomatous rats, A., 1394.
 Kindermann, H., machines for [stretch-spinning] manufacture of artificial textile threads, etc., (P.), B., 364.
 spinning-pump arrangements for machines for manufacturing artificial textile thread, (P.), B., 445.
 filters for the fluid material for production of artificial textile threads or fibres, (P.), B., 668.
 Kindler, K., chemical constitution and physiological action, A., 670.
 Kindler, K. [with Ellinger, K. G.], ortho-effect and reactivity. I. Magnitude and cause of the ortho-effect in the hydrolysis of aromatic esters, A., 962.
 Kindt, B., determination of silicic acid in urine and faeces, A., 789.
 Kindt, B. See also Riesser, O.
 King, A. J. See Clark, G. L.
 King, A. S., characteristics of the neutral and of the singly- and doubly-ionised spectra of cerium, A., 1296.
 King, A. T., effect of sulphur dioxide on azo-dyestuffs and a proposed standard test for fastness to stoving, B., 639.
 modified stoving test [for dyed wool], B., 639.
 chemical effects of the natural sulphur in wool on fading of azo-dyes, B., 707.
 King, C. V., silver-ion catalysis of persulphate oxidations. I. Salt effect on the velocity of oxidation of ammonia. II. Comparison of the velocity with various reducing agents, A., 27.
 silver-ion catalysis of persulphate oxidations. III. Oxidation of ammonium ion. IV. Oxidation of oxalate ion, A., 964.
 King, C. V. See also Brønsted, J. N.
 King, E. J., and Lucas, C. C., picric acid as an artificial standard in the colorimetric determination of silica, A., 1205.
 King, E. S. See Wilder, F. L.
 King, G., and Threlfall, R., materials for use in painting or varnishing [or as impregnating agents], (P.), B., 531.
 King, H., constituent of commercial ethyl ether, B., 68.
 King, H. See also Anslow, W. R., Balaban, I. E., and Gough, G. A. C.
 King, H. S., action of aqueous ammonia on mercurous chloride, A., 852.
 qualitative analysis of the group magnesium, sodium, potassium, A., 859.
 still for preparation of pure water, A., 862.
 modification of the Adams' method of preparing alkyl iodides, A., 988.
 King, J. A. See Johnson, B. M.
 King, J. G. See Jones, J. H., and Manning, A. B.
 King, P. E., Wadadekar, G. M., and Johnson, E. N., determination of Katanol O and investigation of its absorption by viscose silk, B., 708.
 King, P. E. See also Hirst, H. R.
 King, R. H., factors influencing the filtration of raw sugar solutions, B., 498.
 King, W. G., jun. See Fink, C. G.
 King, Taudevin, & Gregson, Ltd. See Nelson, C.
 Kingcome, H. A. See Holmes, J.
 Kingdon, K. H., Langmuir, I., and General Electric Co., conducting [electric] currents, (P.), B., 60.
 Kingsbury, S. S. See Tener, R. F.
 Kingzett, C. T., composition of bleaching powder, A., 379.
 Kinite Corporation. See Moormann, T. A.
 Kinkel, R. P., treatment of garbage, etc., (P.), B., 876.
 Kinnersley, H. W., and Peters, R. A., antineuritic yeast concentrates. IV. Further purification of yeast vitamin-B (curative), A., 556.
 Kinnersley, H. W., Peters, R. A., and Reader, V., antineuritic yeast concentrates. III. Curative pigeon test: a critique, A., 332.
 Kinnersley, H. W. See also Peters, R. A.
 Kinney, A. M., and Standard Oil Co., preparation of leather, (P.), B., 278.

- Kinney, S. P., Royster, P. H., and Joseph, T. L., iron blast-furnace reactions, B., 55.
- Kinney, S. P. See also Joseph, T. L.
- Kinsella, E. See British Celanese, Ltd.
- Kinsey, E. L., excitation of the D-lines by the green sodium band, A., 682.
- Kinsey, E. L. See also Wood, R. W.
- Kinzel, A. B., critical points in chromium-iron alloys, A., 842.
- Kinzie, C. J., and Titanium Alloy Manufacturing Co. manufacture of zirconium compounds, (P.), B., 297.
- Kinzie, C. J. See also Titanium Alloy Manufacturing Co.
- Kionka, H., alcohol. III. Variations in the alcohol content of human blood, A., 443.
- Kionka, H., and Haufe, M., alcohol. V. Excretion of alcohol by the kidneys, A., 443.
- Kipcke, H. See Reinkober, O.
- Kipper, H. B., distillation of oil from oil shale, (P.), B., 807.
- Kippert, (Frl.) F. See Simon, F.
- Kipping, F. B., attempted preparation of optically active derivatives of quadrivalent tin, A., 1267.
- Kipping, F. S., organic derivatives of silicon. XXXIII. An amorphous variety of octaphenylcyclotetrasiloxane. XXXIV. Action of sodium on phenoxydiphenylsilyl chloride, A., 79.
- Kipping, F. S., and Murray, A. G., organic derivatives of silicon. XXXV. Preparation of diphenylsilicon dichloride: "Grignard" ether and its action on silicon tetrachloride, A., 79.
- Kipping, F. S., and Thompson, R. A., occurrence of titanium tetrachloride in commercial disilicon hexachloride, A., 721.
- Kipping, F. S., and Thompson, R. A., occurrence of titanium tetrachloride in commercial disilicon hexachloride, A., 721.
- Kipping, F. S. See also Steele, A. R.
- Kiprianov, A. See Berkman, I.
- Kirberg, R. See Rheinboldt, H.
- Kirch, M., drum dryer with built-in cells, (P.), B., 2.
- Kirchbach'sche Werke Kirchbach & Co., manufacture of friction bodies for brake and clutch purposes, (P.), B., 321.
- Kirchheisen, P., production of sodium sulphide from sodium hydrosulphide, (P.), B., 814.
- Kirchheisen, P., production of *blanc fixe*, (P.), B., 903.
- Kirchheisen, T., Gürtler, J., and Grasselli Dyestuff Corporation, production of fast dyes on the fibre, (P.), B., 856*.
- Kirchheisen, T. See also I. G. Farbenind. A.-G.
- Kircher, A., and Ruppert, F. von, determination of arsenic in arsenobenzene, B., 243.
- Kirchhof, F., application of the quartz-lamp in rubber laboratories, B., 277.
- Kirchhof, F., thermoplastic products resembling gutta-percha and shellac, from rubber, B., 793.
- Kirchhof, F., lamp-black for rubber mixtures, B., 937.
- Kirchhof, H. See Schenck, M.
- Kirchhof, L. See Vogt, E.
- Kirchhoff, H. See I. G. Farbenind. A.-G.
- Kirchmeyer, F. See Hasse, P.
- Kirchner, U., machine for beating, bleaching, refining, etc., of paper and like stock, (P.), B., 600.
- Kirchner, V. See Ley, H.
- Kirk, H. O., treatment [cracking] of [hydrocarbon] oils, (P.), B., 807.
- Kirk, P. L., and Schmidt, C. L. A., behaviour of sodium and barium amalgam electrodes in solutions of amphoteric substances, A., 241.
- Kirk, R. E., and Browne, A. W., oxidation of hydrazine. VIII. Mono-de-electronators and di-de-electronators, A., 380.
- Kirkham, A. See Spence & Sons, Ltd., P.
- Kirkham, V. H., and Raymond, L. W., manufacture of calcium and magnesium salts of eugenol, (P.), B., 703.
- Kirkpatrick, W. C., and National Refining Process Corporation, cracking of oils, (P.), B., 44.
- Kirner, W. R., α -furfuryl chloride (2-chloromethylfuran); α -furfuryl ethers. I, A., 1019.
- Kirner, W. R., effect of structure of organic halides on their rate of reaction with inorganic halides. II. Effect of methylthiol group; new vesicant, A., 1214.
- Kirrmann, A., reactions of α -bromoaldehydes, A., 155.
- Kirrmann, A., action of amines on bromoheptaldehyde, A., 508.
- Kirsanov, A. V. See Tschitschibabin, A. E.
- Kirsch, G., chemical at. wt. determination and true at. wt., A., 684.
- Kirsch, G. See also Petterson, H.
- Kirsch, W., activation of the antirachitic factor in dried yeast, A., 926.
- Kirschbraun, L., recovery of waste fibrous material, (P.), B., 295.
- Kirschbraun, L., manufacture of bitumen-pitch-type emulsions, (P.), B., 335*.
- Kirschbraun, L., manufacture of [bituminous] emulsions, (P.), B., 779.
- Kirschman, H. D., and Ramsey, J. B., potentiometric determination of gallium, A., 861.
- Kirschman, H. D. See also Bray, U. B.
- Kirschner, F., production of galvanic metal coatings, (P.), B., 374*.
- Kirschner, F., and Hess, J., sulphur-proofing metallic conductors for cables, (P.), B., 823.
- Kirstahler, A. See Fischer, Hans.
- Kiss, A. von, neutral salt action in ionic reactions. II. Concentrated salt solutions, A., 1332.
- Kiss, A. von, and Bossányi, (Frl.) I., neutral salt action in ionic reactions; temperature coefficients of neutral salt action, A., 715.
- Kisseleva, V. E. See Pamfilov, A. V.
- Kisser, J., determination of the m. p. of paraffins and the preparation of paraffin mixtures of definite m. p., A., 986.
- Kistiakowsky, G. B., homogeneous gas reactions at high concentrations. I. Decomposition of hydrogen iodide, A., 1193.
- Kita, G., Sakurada, I., and Nakashima, T., solubility of cellulose esters. I and II, A., 230*.
- Kita, G., cellulose esters, B., 48.
- Kita, G., Tomihisa, R., Azami, K., and Fujimoto, M., viscose. IX., B., 256.
- Kita, G., Tomihisa, R., Nakahashi, K., and Onohara, J., viscose. XII., XIII., and XIV., B., 47, 363.
- Kitaigorodsky, I., and Rodin, S., thermal expansion factor of aluminium oxide in glass, B., 928.
- Kitasato, T., partial hydrolysis of populin to saligenin and benzoylglucose by an enzyme in taka-diastase, A., 201.
- Kitasato, T., synthesis of acylolins by the enzymes of acetic acid bacteria, A., 798.
- Kitasato, T., metaphosphatase, A., 1282.
- Kitashima, S., reactions in the evolution flask, A., 1104.
- Kitashima, S., oxidation of cobalt in a solution of cobaltous nitrate by sodium bismuthate, A., 1345.
- Kitchen, F. N. See Heilbron, I. M.
- Kitchen, J. M. W., preparation of solid fuel mixtures, (P.), B., 251.
- Kitchen, J. M. W., treatment of lactic fluids, (P.), B., 347.
- Kitchen, J. M. W., method of saving fuel, (P.), B., 512.
- Kitson, J. See Holliday & Co., Ltd., L. B.
- Kjærgaard, C. N., manufacture of feeding cakes, (P.), B., 872.
- Kjerman, B., and Jordan, L., the hydrogen-antimony-tin method for the determination of oxygen in cast iron, B., 930.
- Klabunde, W. See Keyes, D. B.
- Klähn, H., fresh-water lime-manganese rocks and lime-magnesia fresh-waters, A., 612.
- Klages, A., treatment of seed, (P.), B., 939*.
- Klamer, C. E., solids-not-fat as criterion for watered milk, B., 384.
- Klanfer, K. See Schindler, W.
- Klapproth, W., purification of lactic acid, (P.), B., 596.
- Klar, H. See Hein, F.
- Klar, M., manufacture of white lead acetate solutions and crystals from pyroligneous acid, (P.), B., 710.
- Klason, P., constitution of pine lignin. VI. Identity of a-lignosulphonic acid with coniferaldehydesulphonic acid, A., 277.
- Klason, P., constitution of pine lignin. VII. β -Lignosulphonic acid, A., 622.
- Klason, P., synthesis of α -pine lignin, B., 329*.
- Klason, P., and Mellquist, H., examination of phenols present in tar from the wood of Swedish conifers, B., 77.
- Klatte, K. A. See Wedekind, E.
- Klaver, L., manufacture of photographic negatives and prints, (P.), B., 731.
- Klebansky, A. L. See Sadikov, V. S.
- Kleberger, decomposition of urea in sand cultures and in soil, B., 537.
- Klee, P. See Reitlinger, K.
- Kleeman, R. D., internal energy, maximum work, and free energy of the elements, A., 11.
- Kleeman, R. D., constant of mass action, A., 239.
- Kleeman, R. D., reversible mixing of substances in the condensed state at the absolute zero of temperature, A., 368.

- Kleman, R. D., absolute zero of the externally controllable entropy and internal energy of a substance and a mixture, A., 470.
- ⌈ differential equations of a reacting mixture, A., 589.
- chemical interactions corresponding with the constant of mass action being a function of the volume and masses of the constituents as well as of the temperature and catalytic action, A., 937, 1332.
- changes in inter-atomic internal energy with reference to thermodynamics and catalytic action, A., 955.
- formulae for the internal energy and entropy of a substance or mixture, A., 1187.
- equation of state of a perfect gas, A., 1315.
- Kleiber, M., and Wirth, A., automatic gas analysis for respiration experiments, A., 336.
- Kleijn, D. See Büchner, E. H.
- Klein, A. See Kon, S. K.
- Klein, C. A., British standard specifications for pigments, B., 131.
- Klein, C. A., and Brown, R. S., manufacture of glass, sand, or flint paper, emery cloth, and like abrasives, (P.), B., 859*.
- Klein, G., microchemical detection of organically combined sulphur and magnesium in plants, A., 561.
- nitrate assimilation in moulds, A., 563.
- microchemical detection and change of the organic phosphorus in plants, A., 1407.
- Klein, H. See Silesia Verein Chem. Fabr.
- Klein, L. See Challenger, F.
- Klein, O., and Holzer, H., insulin hypoglycæmia, shock, and leucocytosis in man, A., 799.
- insulin hypoglycæmia and insulin shock in man, A., 1058.
- Klein, O., and Nishina, Y., scattering of light by free electrons according to Dirac's new relativistic dynamics, A., 1070.
- Klein, P., drying products produced from aqueous dispersions of organic substances, particularly of caoutchouc or caoutchouc-like substances, by agglomeration upon a base, (P.), B., 650.
- production of rubber goods from vulcanised rubber such as reclaimed rubber, waste rubber, etc., (P.), B., 827.
- Klein, P., Gabor, F., and Szegvári, A., production of coherent caoutchouc or the like products, (P.), B., 868.
- Klein, P., and Szegvári, A., production of liquid dispersions, (P.), B., 658.
- production of aqueous dispersions of organic substances [e.g., rubber, etc.], (P.), B., 827.
- Klein, P., Szegvári, A., Gotlieb, S., and Wilson, G. F., preventing separation of the constituents of liquid dispersed systems, (P.), B., 802.
- Klein, P., Szegvári, A., McKay, R. F., Hayes, C., and Trobridge, G. W., direct production of rubber articles from aqueous dispersions of rubber and the like vegetable resins or compounds thereof, (P.), B., 903.
- Klein, P. See also Dunlop Rubber Co., Ltd.
- Klein, W. See Waldschmidt-Leitz, E.
- Kleiner, H. See Auwers, K. von, and Wittig, G.
- Kleinfeller, H., bivalent triazenes, A., 630.
- Kleinhaus, H. L., and Cooper & Co., Inc., C., fungicide, (P.), B., 382.
- Kleinheksel, J. H. [with Kremers, H. C.], rare earths. XXIX. preparation and properties of some anhydrous rare-earth chlorides, A., 603.
- Kleinmann, F. See Büttner-Werke A.-G.
- Kleinmann, H., new microcolorimeter and its use, A., 729.
- determination of small amounts of arsenic, A., 858.
- calcium deposition in animal tissues. I. Form of calcium in tissues and tissue fluids. III. Experimental calcification by administration of calcium salts, A., 918.
- Kleinmann, H., and Remesow, I., calcium deposition in animal tissues. II. Acidity of tissue in dystrophic calcification, A., 918.
- Kleinmann, H. See also Rona, P.
- Kleinówna, A., relation between rate of stirring and velocity of reaction in heterogeneous systems, A., 26.
- Kleinstuck, M., occurrence of manganese in trees, A., 1060.
- Klemenc, A., electrolytic reduction and reactions in the glow discharge at the liquid-gas interface, A., 30.
- Klemenc, A., and Kohl, O., volatile hydrides; formation of a compound HCl, HBr, and the binary system hydrogen chloride-nitrous oxide, A., 130.
- Klemm, R., allochromy, morphotropy, and formation of minerals, particularly gem stones, A., 730.
- Klemm, R., hydrothermal formation of iron ores, A., 1210.
- Klemme, M. S. See Ekeley, J. B.
- Klemperer, O., refraction quotient of the De Broglie waves of electrons, A., 344.
- Klempt, W. See Keller, K., and Schönfelder, R.
- Klenk, E., cerebroside. VII. Hydroxy-acids of brain cerebroside, A., 868.
- Klen, H. See Hertel, E.
- Klimov, B. K., and Lanin, V. A., use of oil shales in the preparation of ultramarine, B., 680.
- Klimsch, E., Schumacher, P., and Klimsch & Co., obtaining copies from photographic negatives, (P.), B., 549.
- Klimsch & Co. See Klimsch, E.
- Klinar, H., Reinhold, O., and Wark, N., energy losses of a 7-ton and of a 10-ton Héroult furnace, B., 896.
- Kline, B. L. See Curtin, L. P.
- Kline, E., and Grasselli Chemical Co., preparation of substituted guanidines, (P.), B., 117.
- Kline, H. B. See Niederhauser, F. C.
- Kling, M., and Engels, O., root-soluble nutrients in soils and subsoils, B., 380.
- Klingbiel, K. See Benekiser Chem. Fabr., J. A.
- Klingspor, C., glueing process and preparation of glue therefor, (P.), B., 682.
- Klingstedt, F. W., production of furfuraldehyde from oxycellulose, A., 992.
- ultra-violet absorption spectra of simple benzene derivatives, A., 1304.
- Klingstedt, F. W. [with Wiese, G., and Rudbäck, G.], action of hypochlorous acid on benzene hydrocarbons, A., 875.
- Klingstedt, F. W. See also Hägglund, E.
- Klinke, K., condition of serum-calcium and its pathological significance, A., 316.
- hæmolytic. II., A., 1151.
- Klinke, K. See also Egg, C.
- Klinkenberg, A. See Reinders, W.
- Klirstein & Sons Co. E. C. See Stone, H. G.
- Klisiecki, L., and Sucharda, E., 1:5-naphthyridine and certain of its derivatives, A., 76.
- Klit, A., use of the quinhydrone electrode in electrometric acid titration, A., 143.
- Klit, A. See also Billmann, E.
- Klitsch. See Gisevius.
- Kljatsehkina, B. See Stuber, E.
- Kloepfer, H. See Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.
- Klöter, K. See Weil, H.
- Klopman, L. See Csanyi, H.
- Klopstock, A., and Selter, G. E., chemospecific antigens, A., 1403.
- Klopstock, E., respiration and glycolysis of the skin and the influence of hormones, A., 330.
- Klopstock, H., aldol- α -naphthylamine [as an anti-oxidant for rubber], B., 276.
- Klosky, S., and Burggraaf, A. J., adsorption of sulphur dioxide by titania gel, A., 580.
- Klosky, S., and Woo, L. P. L., adsorption of mixtures of easily-condensable gases, A., 1086.
- Klostermann, M., and Quast, H., determination of butter fat and coconut oil, B., 60.
- Klotz, L. J., enzymes of *Pythiacystis citrophthora*, Sm. and Sm., A., 803.
- inhibition of enzymic action as a possible factor in the resistance of plants to disease, A., 928.
- Klotz, O., manufacture of transparent papers, particularly those used for the packing of edible articles, (P.), B., 229.
- Klüglich, E. See Zacharias, L.
- Klugh, B. G., and Federal Phosphorus Co., collection of phosphoric acid, (P.), B., 297.
- Klumb, H., influence of the gas layer on the photo-electric sensitivity of metals, A., 452.
- Klumpp, E., pigment and vehicle, B., 164.
- Kluyver, A. J., and Struyk, A. P., existence of cell-free fermentation, A., 89.
- first phases of the chemistry of the dissimilation of the hexoses, A., 398.
- Knacke, (Miss) F. E. D. See Noble, W. C., jun.
- Knaebel, E. See Herz, W.
- Knaggs, I. E., form of the carbon atom in crystal structure, A., 464.

- Knaggs, J. See Kernot, J. C.
- Knapheide, M. D., and Lamb, A. R., determination of iodine in mineral mixtures [for feeding stuffs], B., 728.
- Knapp, A. W., and Phillips, R. J., determination of sulphur dioxide in fatty substances, B., 340.
- Knapp, E. See Grabfield, G. P.
- Knapp, H., formation of diastase by *Aspergilli*, A., 562.
- Knapp, W. See Weiss, R.
- Knaster, M. See Jabłczyński, K.
- Knauer, H., lipid and fat metabolism during fattening, A., 1050.
- Knauss, C. A., and Smull, J. G., rate of reaction between bromine and unsaturated fatty acids as evidence of stereoisomerism, A., 45.
- Knauss, C. A. See also Gardner, H. A.
- Knauss, H. P., band spectra in the extreme ultra-violet excited by active nitrogen, A., 1166.
- Knaysi, G., and Nelson, J. D., increasing the yield of cheese by the addition of calcium chloride to milk, B., 138.
- Knecht, O., and Chemische Fabrik vorm. Sandoz, production of 4-nitro-2-aminophenoxy-ethanol or -propanediol [4-nitro-2-aminophenyl β -hydroxyethyl or $\beta\gamma$ -dihydroxypropyl ether, (P.) B., 475*.
- Kneiß, J. See Stieha, K.
- Knetemann, A., Duclaux method for determination of volatile fatty acids, and its application to the determination of butter fat in margarine, B., 865.
- Kniga, A. G. See Dumanski, A. V.
- Knight, B. C. J. G., and Stamberger, P., unimolecular films, A., 945.
- formation of gels; vulcanised oils, A., 1322.
- Knight, B. C. J. G. See also Cannan, R. K.
- Knight, H. See De Ong, E. R.
- Knight, H. F., "Knight test" for feathers, B., 443.
- Knight, R. S. G. See Desborough, A. P. H.
- Knipp, C. T., adjustable needle valve leaks, A., 984.
- Kniskern, W. H., and Atmospheric Nitrogen Corporation, heat exchanger, (P.) B., 72.
- Knithakis, E. See Maignon, F.
- Knoch, C., and Gross, F., manufacture of stable dry substances from colloidal liquids, especially liquids containing fat and albumin, (P.) B., 386.
- Knoke, S. See Braune, H.
- Knoll, R. See Busch, M.
- Knoll & Co., manufacture of water-soluble double compounds of digitoglucotannoids, the total digitalis glucosides being in their natural form, (P.) B., 316.
- Knoop, F., reversibility of the oxidative decomposition of amino-acids and its physiological significance, A., 158.
- Knoop, F., and Oesterlin, H., synthesis and fission of amino-acids, A., 519.
- Knoop, G., new reserve effects under aniline black [by printing], B., 49.
- Knopf, C., production of waterproof textile material, paper, etc., (P.) B., 782*.
- Knopf, E. See Freudenberg, K.
- Knorr, A. See I. G. Farbenind. A.-G.
- Knoth, G. W. F. F., process for obtaining alkaloids, (P.) B., 943.
- Knowler, A. E., measurement of the electrical resistance of porous materials, B., 305.
- Knowles, H. See McLaughlin, W.
- Knowles, H. B. See Lundell, G. E. F.
- Knowlton, L. G., iron [and tin], A., 1201.
- Knox Terpezone Co., Inc. See Bagnall, E. J.
- Knudsen, G., manufacture of ceramic material, (P.) B., 232.
- building material, (P.) B., 266.
- Knudsen, M., hot-wire manometer, A., 502.
- Knudsen, R. See Goldschmidt, V. M.
- Knudson, A., antirachitic activation of substances by cathode rays, A., 91.
- Knudson, A. See also Randles, F. S.
- Knüttel, E., centrifugal machines, (P.) B., 628.
- Knunjan, I. L. See Tschitschibabin, A. E.
- Kobayashi, H., glycerophosphatase, A., 796.
- Kobayashi, M., amalgam method, A., 262.
- Kobayashi, R. See Tanaka, Y.
- Kobayashi, S., synthesis of some aralkylamines containing phenolic hydroxyl groups in the benzene nucleus, A., 169.
- double compounds of α -unsaturated acid amides with acid and ammonia, A., 176.
- Kobayashi, S., relation between chemical constitution and pungency in acid amides, A., 176.
- Kobbé, W. H., and Texas Gulf Sulphur Co., [production of] coloured sulphur, (P.) B., 261.
- Kobel, M., and Tychowski, A., second form of fermentation of sugar under the influence of carbamic acid hydrazide and thiocarbamic acid hydrazide; isolation of acetaldehyde and glycerol, A., 1284.
- Kobel, M. See also Neuberg, C.
- Kober, P. A., and Searle & Co., G. D., manufacture of bismuth tartrates, (P.) B., 333.
- Kober, S. See Neumann, B.
- Kobernik, J. E., and Newton Process Manufacturing Co., heat exchanger, (P.) B., 2.
- Kobiolke, A. M., treatment of timber for the destruction of the borer, larvae, beetles, or other pest, (P.) B., 571.
- preservation of timber and other materials and destruction of insect and other pests therein, (P.) B., 713.
- Koch, E. M., and Cahan, M. H., fractionation of the antirachitic vitamin, A., 1406.
- Koch, F., and International Sugar & Alcohol Co., Ltd., removal of hydrochloric acid from sugar solutions, (P.) B., 797.
- Koch, F. C. See Sugata, H., and Winkler, L. E.
- Koch, F. K. V., silver nitrate concentration cells in acetonitrile and benzonitrile, A., 370.
- solution tension of silver in non-aqueous solvents, A., 370.
- Koch, H. See Fischer, F., and Kall, L.
- Koch, L. See Masing, G.
- Koch, R., flocculation of brewery yeast, B., 541.
- Kocher, R. A., conversion of carbohydrates, (P.) B., 520.
- Koch-Holm, (Frl.) E., structure analyses in the crystalline carbon series, A., 464.
- Koch-Holm, (Frl.) E., and Schönfeldt, N., space-lattice analysis of potassium sulphate [potassium chromate] and potassium selenate, A., 463.
- Koch-Holm, (Frl.) E. See also Krüger, F.
- Kochmann, M., and Seel, H., action of naturally occurring iron compounds on metabolism; active iron, A., 1275.
- Kock, H., and Quitt, R., boiling and evaporating apparatus for boilers, particularly for boilers for brewing, (P.) B., 346.
- Kocour, C., apparatus for determining the strength of solutions [by colorimetric assay], (P.) B., 144.
- Kodel Radio Corporation. See Ogden, C. E.
- Kodner, D. J. See Ijinski, M. A.
- Kögel, G., apparatus for observing fluorescence by ultra-violet illumination, A., 266.
- constitution of the flavinduline desensitisers, B., 245.
- Kögl, F. [with Becker, H., De Voss, G., and Wirth, E.], colouring matters of fungi. VII. Synthesis of atromentin; atromentic acid, A., 1251.
- Kögl, F., and Becker, H. [with Detzel, A., and De Voss, (Frl.) G.], colouring matters of fungi. VI. Constitution of atromentin, A., 1250.
- Kögl, H. See Prandtl, W.
- Koehler, A., and Marquayrol, M., coefficients of exchange of nitro-cotton, B., 109.
- Abel test. I. and II., B., 655.
- determination of nitrites in nitrocellulose, B., 656.
- Koehler, A. See also Goy, S.
- Köhler, E., deformation of refractory materials under load at high temperatures, B., 895.
- Köhler, G. See Neumann, B.
- Köhler, H. See Leuchs, H.
- Köhler, L., colorimetric determination of p_A values in the tannery, B., 829.
- Köhler, L. See also Slansky, P.
- Köhler, Reinhard, diffusion of a hydrogen potential or reduction potential through platinum and palladium, A., 1097.
- Köhler, Rudolf, dependence of viscosity of starch suspensions on the velocity [of flow], A., 15.
- liquid phase rule in the formation of oil emulsions, A., 1092.
- Köhler, Rudolf. See also Ostwald, Wolfgang.
- Koehler, S., influence of flour on the reaction of liquid in which it is soaked, A., 1408.
- Köhler, W., diffusion of zinc in copper and in copper-zinc mixed crystals at 350°; diffusion in the solid state, A., 698.
- Koehler, Wilhelm, production of magnesium from magnesia compounds, (P.) B., 95.
- production of magnesium from dolomite, (P.) B., 96.

- Koehler, *Wilhelm*, magnesia [from dolomite]; refractory magnesia compounds, (P.), B., 366.
 production of high-grade magnesium oxide, (P.), B., 366.
- Köhler, *Willi*. See Heller, G.
- Koehler, *Z.*, solubility of phosphorus compounds contained in seeds, A., 560.
- Köhn, *M.*, mechanical analysis of soils. II., B., 27.
 mechanical analysis of soils. III. A new pipette, B., 583.
 mechanical analysis of soils, B., 906.
- Koehn, *W.* See British Mannesmann Tube Co., Ltd.
- Köhne, *H.*, and Suhreke, *W.*, electric battery cell, (P.), B., 790.
- Koelliker, *G. P.* See Bensing, *Le R. P.*
- Koelsch, *toxicity of aromatic nitro-compounds; dinitrophenol*, A., 548.
- Koenig, *A.*, influence of high-velocity electrons on lead and copper, A., 216.
- Koenig, *A.*, and Körösy, *F. von*, transmutation of an element by cathode rays, A., 1070.
- Koenig, *A.* See also Bredig, G.
- König, *G.*, measuring the density of gas, (P.), B., 391*.
- Koenig, *H. T.*, roasting of vanadiferous ores and compounds, (P.), B., 235.
- König, *W.* [with Seidel, *P.*, and Stühmer, *G.*], preparation of substituted γ -methylbenzthiazoles and their transformation into new heterocyclic polymethine dyes, A., 1385.
- König, *W.*, Sehramek, *W.*, and Rösch, *G.*, vinylene homologues of *p*-dimethylaminobenzaldehyde, A., 1375.
- Koenigs, *E.*, Gerdes, *H. C.*, and Sirot, *A.*, nitration of 3-ethoxy-pyridine, A., 773.
- Königsberger Zellstoff-Fabrik & Chemische Werke Koholyt Akt.-Ges., manufacture of a disinfectant, (P.), B., 876.
- Königsberger Zellstoff-Fabrik & Chemische Werke Koholyt Akt.-Ges., and Schlumberger, *E.*, crystallisation of chrome alum, (P.), B., 603.
- Koepp & Co., *R.*, coagulation of rubber latex, (P.), B., 101.
- Koepp & Co., *R.* See also Elöd, *E.*
- Köppel, *W.* See Abderhalden, *E.*, and Küster, *W.*
- Köpplinger, *H.*, preventing or removing boiler scale or other like deposits, (P.), B., 110.
- Körber, *F.*, determination of the permanent strength of steel at high temperatures, B., 300.
 plastic deformation of metals, B., 897.
- Körber, *F.*, and Schitzkowski, *G.*, contraction of steel castings, B., 300.
- Körding, *P.* See Diels, *O.*
- Körnchen, (*Frl.*) *M.* See Nagel, *W.*
- Körner, *E.*, and Hecht, *F.*, analysis of pitchblende, B., 709.
- Körner, *E.* See also Hecht, *F.*
- Körösy, *F. von*. See Koenig, *A.*
- Köster, *E.* See Guenther, *A.*
- Köster, *H.* See Bergmann, *M.*
- Köster, *W.*, electrolytic copper, B., 488.
- Kötschau, *K.* See Simon, *A.*
- Kötz, *A.*, and Buseh, *G.*, formation of 3-*p*-menthone and 3-*p*-menthol from Δ^3 -*p*-menthene, A., 644.
- Kofter, *F.* See Lent, *H.*
- Kofter, *L.*, and Adam, *P. A.*, evaluation of saponin drugs, B., 387.
 preparation of decoctions of saponin drugs, B., 387.
- Kofter, *L.*, and Brauner, *M.*, saponin of *Primula* root. II., A., 294.
- Kofter, *L.*, and Lázár, *Z.*, influence of hydrogen-ion concentration on saponin haemolysis, A., 318.
- Kogan, *G.*, "calcium glycerinophosphoricum solubile" and some glycerophosphates, B., 464.
 simplified method for determination of silver [in medicinals], B., 623.
 simplified determination of cresol in cresol soap preparations, B., 761.
 detection of heavy metals in magnesium salts, B., 892.
- Koganei, *R.* See Ettisch, *G.*
- Kogert, *H.* See Müller, *Erich*.
- Kohl, *O.* See Klemenc, *A.*
- Kohlenveredlung Aktien-Gesellschaft, drying of moist material, (P.), B., 40.
 drying material [coal] by means of fumes evolved in a subsequent operation, (P.), B., 290.
 distillation of carbonaceous or bituminous substances, (P.), B., 356.
 distillation of solid carbonaceous or bituminous substances, (P.), B., 395.
- Kohlenveredlung Aktien-Gesellschaft, distillation of bituminous substances, fuels, etc., (P.), B., 593.
- Kohlenveredlung Aktien-Gesellschaft, and Kohlenveredlung G.m.b.H., working of gas retorts, (P.), B., 115.
 low-temperature carbonisation, (P.), B., 778.
- Kohlenveredlung G.m.b.H. See Kohlenveredlung Akt.-Ges.
- Kohler, *E. P.*, isooxazolone oxides, A., 309.
- Kohler, *E. P.*, and Allen, *P., jun.*, cyclopropane series. XI. cyclopropane derivatives with a tertiary nitro-group attached to the ring, A., 523.
- Kohler, *E. P.*, and Blatt, *A. H.*, diphenylisooxazolone; tautomerism of isooxazolones, A., 430.
 isooxazole ψ -bases and salts, A., 652.
- Kohler, *E. P.*, Stone, *J. F.*, and Fuson, *R. C.*, apparatus for determining the quantity of gas evolved and the amount of reagent consumed in reactions with magnesium methyl iodide, A., 160.
- Kohler, *E. P.* See also Barré, *R.*
- Kohl-Egger, *E.* See Mark, *R. E.*
- Kohlrausch, *K. W. F.*, radioactive radiation, A., 455.
- Kohlschütter, *V.*, lead tree, A., 257.
- Kohlschütter, *V.* See also Goldschmidt A.-G., *T.*
- Kohlswa Jernverks Aktiebolag, manufacture of steel, (P.), B., 19.
- Kohman, *E. F.*, Eddy, *W. H.*, and Halliday, *N.*, vitamins in canned foods. VI. Strawberries, B., 242.
- Kohman, *E. F.*, and Sanborn, *N. H.*, tin plate and the electrochemical series, B., 159.
- Kohman, *G. T.*, and Peek, *R. L., jun.*, brittleness tests for rubber and gutta-percha compounds, B., 165.
- Kohman, *H. A.*, manufacture of bread, (P.), B., 242.
- Kohman, *H. A.*, and Fleischmann Co., manufacture of bread, (P.), B., 68*, 106*.
- Kohman, *H. A.*, Irvin, *R.*, Stateler, *E. S.*, and Fleischmann Co., production of enzymes for use in manufacture of bread, (P.), B., 690*.
- Kohman, *H. A.*, Irvin, *R.*, Stateler, *E. S.*, and Ward, *G. S.*, coagulation or curdling of milk, (P.), B., 139*.
- Kohn, *M.*, and Feldmann, *M. K.*, bromophenols. XXXII. Preparation of 2:6-dibromo-*m*-xyloquinone from *s*-xylolol, A., 762.
- Kohn, *M.*, and Gurewitsch, (*Frl.*) *E.*, bromophenols. XXXIII. Chloro- and bromo-pyrogallol ethers, A., 750.
- Kohn, *M.*, and Kramer, *R.*, halogenated *o*-anisidines, A., 749.
 bromophenols. XXXI. 3:4:5-Trichlorophenol, A., 750.
- Kohn, *O.* See Zintl, *E.*
- Kohn-Abrest, *E.*, toxicological analysis of air, diffusion of fumes, and results of experiments at the Eiffel Tower. II., B., 732.
- Kohn-Abrest, *E.*, and Lupu, disappearance of hydrocyanic acid from blood, A., 1045.
- Kohner, *H.* See Fajans, *K.*
- Kohorn, *O. von*, Kohorn & Co., *F. O.*, and Perl, *A.*, cleansing of funnels of cuprammonium artificial silk spinning machines, (P.), B., 600.
- Kohorn, *O. von*, and Perl, *A.*, wet treatment of hanks of textile material, (P.), B., 601.
- Kohorn & Co., *F. O.* See Kohorn, *O. von*.
- Kohout, *G. A.*, furnaces, (P.), B., 505.
- Koidzumi, *S.*, electrolytic oxidation of alcohols. IV. Propyl alcohol in alkaline solution, A., 1353.
 electrolytic oxidation of alcohols. III. Benzyl alcohol, A., 1371.
- Kojima, *Y.*, carbohydrate metabolism of the central nervous system; glycogen and cerebroside content of the brain and the glycogen content of the heart in the normal condition and during deficiency of oxygen, A., 196.
 production of sugar from fat, A., 197, 1050.
- Kojima, *Y.* See also Asher, *L.*
- Kojitsch, *S.* See Benrath, *A.*
- Kokatnur, *V. R.*, alkali fusion [saponification of glycerides], (P.), B., 418*.
- Köketsu, *R.*, water content of leaves in relation to the wilting of plants, A., 1059.
- Koks- & Halbkoks-Brikettierungs-Ges.m.b.H., production of semi-coke briquettes from bituminous coal, (P.), B., 251.
 manufacture of briquettes from low-volatile fuels, fine ores, flue dust, etc., with the aid of binders, (P.), B., 436.
- Kolb, *R.* See Kraftmetall Aktiebolaget.
- Kolbach, *P.*, formal titration [of beers, etc.], B., 871.
- Kolbach, *P.* See also Windisch, *W.*

- Kolbert, O. See Jungmann, K.
- Kolbörster, W., γ -rays from potassium salts, A., 1169.
- Kolitsovska, (Mme.) H. See Milobedzki, T.
- Kolke, F., nitro-oil- or combination-lacquers, B., 131.
- "crystallising" varnishes and "cracklo" varnishes, B., 275.
- Kolkmeijer, N. H., quantum emission and stationary states, A., 4.
- analysis of crystal structure by means of Röntgen rays, A., 463.
- physical purity and powder röntgenograms, A., 692, 1078*.
- Kollath, R., vertical deflexion of slow electrons by gas molecules, A., 1300.
- Kollbach, K. See Pfeiffer, P.
- Kolle, W. See I. G. Farbenind. A.-G.
- Koller, G., and Krakauer, Erich, synthesis of acridone and acridine, A., 1024.
- Koller, G., and Strang, E., synthesis of acridinic acid [quinoline-2:3-dicarboxylic acid], A., 1024.
- Koller, J. P. See Booge, J. E.
- Koller, L. R., effect of oxygen on photo-electric emission from potassium, A., 1298.
- Koller-Aeby, H., dissolution of colloidal silver in hydrogen peroxide, A., 1091.
- Kollman, M. See Bierry, H.
- Kollmann, G., determination of phenylalanine by an oxidative method, A., 660.
- Kollmann, M., Gaver, F. van, and Timon-David, J., biochemistry of *Centrina vulpecula*, Rond., A., 1393.
- Kollrepp, W., rapid analysis of ordinary brass and red brass, B., 302.
- Kolodziejska, Z., and Funk, K., influence of insulin on phosphorus metabolism, A., 205.
- Kolosovski, N. von, entropy of a perfect gas at 0° Abs., A., 241.
- Kolthoff, I. M., detection and determination of metals by means of 8-hydroxyquinoline ("oxine"), A., 145.
- adsorption of strong electrolytes by pure carbon free from ash, A., 357.
- detection of traces, and colorimetric determination, of beryllium, A., 386.
- exact determination of the equivalence point in potentiometric titrations, A., 496.
- use of quinaldine-red for the determination of p_H in an acid medium, A., 564.
- detection and colorimetric determination of aluminium, A., 608.
- pinachrome as a one-colour indicator, A., 840.
- influence of dilution on the p_H of buffer mixtures, A., 840.
- dissociation constants of the naphthylaminesulphonic acids, A., 954.
- examination of colloidal silver preparations, B., 653.
- Kolthoff, I. M., and Bosch, W., influence of neutral salts on acid-salt equilibria. II. Dissociation constants of citric acid, A., 589.
- influence of neutral salts on acid-salt equilibria. III. Second dissociation constant of carbonic acid and influence of salts on the activity of hydrogen ions in a hydrogen carbonate-carbonate mixture. IV. Third and fourth dissociation constants of pyrophosphoric acid and influence of neutral salts on the activity of hydrogen ions in a ter-quadrivalent and di-tervalent pyrophosphate mixture, respectively, A., 954.
- influence of neutral salts on acid-base equilibria. V. First and second dissociation constants of succinic, tartaric, and adipic acids, and the influence of neutral salts on the p_H of a mixture of the acid and its acid salt, and the acid salt and normal salt, respectively. VI. Dissociation constants of acetic, hexoic, and benzoic acids and the influence of neutral salts on the dissociation constants of weak acids, A., 1325.
- Kolthoff, I. M., and Laur, A., volumetric determination of ammonia with hypobromite by the ordinary and by a potentiometric method, A., 498.
- Kolthoff, I. M., and Meene, G. H. P. v. d., gravimetric determination of copper as cuprous thiocyanate, A., 265.
- Kolthoff, I. M., and Sandell, E. B., rapid separation of aluminium and beryllium, A., 981.
- Kolthoff, I. M. See also Barber, H. H.
- Komarevsky, V. See Hess, K.
- Komarovski, A., dissolution of sulphides in mixtures of acid and hydrogen peroxide, A., 265.
- [reactions of cobalt and lead], A., 500.
- Komarovski, A., and Ovetschkin, B., detection of cobalt by Tananaev's spot method, A., 265.
- Komatsu, M., origin of plasma-proteins, A., 538.
- Komatsu, S., catalytic action. XVII. New functions of reduced copper. II., A., 286.
- Komatsu, S., and Hiki, O., chemistry of Japanese plants. IX. Studies on the "tundra" (peat) of Southern Karafuto, B., 177.
- Komatsu, S., and Ishida, S., catalytic action. XXI. Catalytic reduction of nitriles, A., 286.
- Komatsu, S., and Kurata, M., catalytic action. XXII. Catalytic action of reduced copper on unsaturated hydrocarbons, A., 1017.
- Komatsu, S., and Matsunami, N., kakishibu. IV. Constitution of shibuol. III., A., 1137.
- Komatsu, S., Matsunami, N., and Kurata, M., kakishibu. V. Methylation of shibuol, A., 1138.
- Komatsu, S., and Suzuki, S., catalytic action. XIX. Catalytic action of reduced copper on methyl alcohol, A., 289.
- Komatsu, S., and Tanaka, O., action of superheated water on sugars. I., A., 275.
- Komatsu, S. See also Tei, S.
- Komers, K., and Cuker, K., diffusion process and apparatus, (P.), B., 423.
- Komlos, A. See Komlos, J.
- Komlos, J., Komlos, A., Engelke, E. F., and Vajdaff, A. von, manufacture of carbon disulphide, (P.), B., 7.
- Komm, E., and Müller, Rudolf, chemical analysis of nutritive preparations, B., 386.
- Komm, E. See also Wessely, F.
- Komovsky, G. F., capillary electrometer, A., 501.
- Kompanski, D. J. See Laschtschenko, P. N.
- Kon, G. A. R. See Abbott, A. E., Dickens, A. H., and Jupp, L. G.
- Kon, S. K., nutritional value of tuberin, the globulin of potato, A., 324.
- Kon, S. K., Daniels, F., and Steenbock, H., photochemical activation of sterols in the cure of rickets. II., A., 1288.
- Kon, S. K., and Klein, A., value of whole potato in human nutrition, A., 324.
- Kon, S. K., and Moore, T., attempted activation of tyrosine by ultra-violet irradiation, A., 91.
- Konarzewski, J., and Kryński, B., firing of clays in the presence of water vapour and sulphur dioxide, B., 671.
- Kondakov, I. L., products of the addition of chlorine and bromine to pinene and their de-chlorination, A., 526.
- Kondō, H., alkaloid from the Chinese drug "Kuh-seng," A., 531.
- Kondo, K., and Hayashi, T., influence of salts on the isoelectric behaviour of proteins, A., 950, 1324.
- isoelectric point of glutenin, A., 1324.
- Kondo, T. See Horiba, S.
- Kondoguri, W., influence of electric and magnetic fields on crystallisation of supercooled liquids, A., 592.
- Kondratév, V., non-appearance of the recombination luminescence in the reaction between alkali and halogen atoms, A., 569.
- homopolarity of the hydrogen halides, A., 688.
- mechanism of the reaction between sodium vapour and copper halides. II., A., 811.
- Kondratév, V., and Leipunski, A., light emitted by the reunion of iodine [atoms], A., 814.
- light emitted by the recombination of halogens, A., 1075.
- Kondu, K., constitution of delphinin, A., 1255.
- Kondyrev, N. V., electrolytic formation of magnesium amalgam and its decomposition by the air, A., 253.
- Konheim, H. S. See Albersheim, W. J.
- Konig, D. See Pushin, N. A.
- Konikov, A., chemistry of specific hæmagglutination, A., 439.
- the erythrocyte as a colloidal system. II. Isoelectric zone of erythrocytes, A., 787.
- the erythrocyte as a colloidal system. III. Permeability of erythrocytes to electrolytes. IV. Mechanism of hæmolysis in hypotonic solutions, A., 1390.
- Konopicky, K. See Müller, W. J.
- Konopnicki, A., and Sucharda, E., preparation of acridinic [quinoline-2:3-dicarboxylic] acid and derivatives, A., 73.
- Kononova, R. A., and Magidson, O., alkaloids of *Hyoscyamus reticulatus*, L., A., 1386.
- Konówna, A. See Weil, S.

- Konrad, *W.* See Schneider, *A.*
- Kopaczewski, *W.*, buffering power of serum and immunity, *A.*, 441.
- Kopitsch, *M.*, testing artificial silks by means of ultra-violet light, *B.*, 705.
- Kopke, *E.*, centrifugal separator, (*P.*), *B.*, 773.
- Kopp, *A.*, soil sampler, *B.*, 538.
- Kopp, *E.*, essential oil of angelica seeds, *B.*, 547.
- Kopp, *F. L.* See Feist, *A.*
- Kopp, *H.* See Reiner, *L.*
- Kopp, *W.* See Goldstein, *H.*
- Koppe, *P.* See Herold, *P.*, and I. G. Farbenind. *A.-G.*
- Koppenberg, *H.*, preparation and properties of silicon steels, *B.*, 572.
- Koppenhöfer, *G. F.* See Küster, *W.*
- Koppermann, *H.*, and Ladenburg, *R.*, anomalous dispersion of gases in the excited state. II. Anomalous dispersion in excited neon. III. Transition probability and density of excited atoms in neon; statistical equilibrium in the positive column, *A.*, 577.
- experimental proof of "negative dispersion," *A.*, 1172.
- Koppers, *H.*, coking oven, (*P.*), *B.*, 469.
- Koppers, *H.*, and Koppers Development Corporation, coking retort oven, (*P.*), *B.*, 394.
- coke-oven heating; retort oven, (*P.*), *B.*, 559.
- oven for burning refractories, etc., (*P.*), *B.*, 606*.
- Koppers Co., and Ackeren, *J. van*, coking retort ovens of the vertical-chamber type, (*P.*), *B.*, 805.
- vertical-chamber coke-oven batteries, (*P.*), *B.*, 805.
- Koppers Co., Rose, *H. V.*, and Hill, *W. H.*, manufacture of coal products, (*P.*), *B.*, 882.
- Koppers Co., and Sperr, *F. W., jun.*, gas-purification process and apparatus, (*P.*), *B.*, 357.
- Koppers Co. See also Ackeren, *J. van*, Becker, *J.*, Bird, *E. H.*, Hall, *R. E.*, Parry, *N. G.*, Puening, *F.*, and Sperr, *F. W., jun.*
- Koppers Development Corporation. See Koppers, *H.*
- Korchoy, *A.*, effect of some fractions of Liebig's meat-extract, obtained by the methods of Gulewitsch and Krimberg, on gastric secretion, *A.*, 200.
- Korczynski, *A.*, 2-iodofluorene, *A.*, 514.
- Korczynski, *A.*, and Novakowski, *A.*, preparation of phenolic ketones by the Hoesch method, *A.*, 523, 762*.
- Korczynski, *A.* See also Flatau, *J.*
- Kordatzki, *W.* See Fiehe, *J.*
- Kordes, *E.*, eutectic f. p. depression in binary mixtures. III., *A.*, 117.
- eutectic f. p. depression in binary mixtures. IV. Effect of pressure on eutectic equations, *A.*, 367.
- eutectic f. p. depression in binary mixtures. V. Determination of mol. wt. from the position of the eutectic temperature, *A.*, 843.
- Kordt, *O.*, hollow grinding bodies for ball-, drum-, and tubular mills, (*P.*), *B.*, 217.
- Koref, *F.*, Alterthum, *H.*, and General Electric Co., preparation of metals with high-temperature fusing points, such as tungsten, and of wire therefrom, (*P.*), *B.*, 96.
- Koref, *F.* See also Blau, *F.*, and Wolff, *Hans.*
- Korenchevsky, *V.*, sexual glands and metabolism. V. Influence of lipid extracts of testes and prostate on nitrogen metabolism and development of genital organs, *A.*, 554.
- Korenchevsky, *V.*, and Schultess-Young, *M.*, sexual glands and metabolism. VI. Influence of water-soluble testicular and prostatic extracts on nitrogen metabolism and development of genital organs, *A.*, 554.
- Koreny, *A.* See Sauerwald, *F.*
- Korff, *M.*, and Bemberg Akt.-Ges., *J. P.*, filter press, (*P.*), *B.*, 74.
- Korff, *S. A.*, periodic classification of the hardness and m. p. of the elements, *A.*, 1180.
- Korff, *S. A.* See also Stewart, *J. Q.*
- Korff-Petersen, *A.*, and Liese, *W.*, certain cell constituents of acid-fast [bacteria] and their antigenic character. I., *A.*, 330.
- Kořinek, *J.*, decomposition of organic substances in the sea, *A.*, 330.
- Korinth, *E.*, sulphur and selenium, *A.*, 941.
- Korinth, *E.* See also Linck, *G.*
- Kormann, *F. A.*, and United Refineries Co., treatment of oil, (*P.*), *B.*, 513.
- Kornatzki, *H. H. von*, production of soaps, cosmetics, and medicinal preparations containing succinic acid, (*P.*), *B.*, 37, 837*.
- Kornfeld, (*Miss*) *G.*, effective cross-section of gas molecules in chemical kinetics, *A.*, 104.
- photochemistry of chlorine, *A.*, 601.
- Kornfeld, (*Miss*) *G.* [with Meneke, *E.*], light reaction between ferric chloride and oxalic acid, *A.*, 1338.
- Kornfeld, *H.*, new phenomenon in the scattering of light in crystals, *A.*, 1077.
- Korolev, *A.*, esterification in presence of silica gel, *A.*, 637.
- Korolev, *A.* See also Rutovski, *B. N.*
- Korowitsky, *L.*, influence of arsenic on the magnitude of the carbon and oxidation quotients of the urine, *A.*, 1399.
- Korsakov, *M.*, determination of sulphur in crude petroleum and its products, *B.*, 559.
- Korsakova, *M. P.*, bacterial denitrification, *A.*, 1056.
- Korveze, (*Miss*) *A. E.*, and Voogd, *N. H. J. M.*, magnitude of observation errors in chemical analysis, *A.*, 976.
- Korveze, (*Miss*) *A. E.* See also Scheffer, *F. E. C.*
- Korzuchina, *T.* See Matschigin, *A. A.*
- Kosakevitsch, *P. P.*, surface tension of non-aqueous salt solutions, *A.*, 582.
- surface tension and solvation in salt solutions, *A.*, 1183.
- Koshitaka, *T.* See Yamada, *S.*
- Kosik, *A.* See Balaš, *F.*
- Kossel, *A.*, and Schenek, *E. G.*, basic proteins and their development, *A.*, 639.
- Kossel, *A.*, and Staudt, *W.*, preparation of an arginine peptide from clupeine, *A.*, 81.
- basic proteins, *A.*, 534.
- Kossovski, *P.*, absorption of atmospheric moisture by molten metals, *B.*, 676.
- Kostevitch, *M.*, apparatus for determining ignition and explosion points of explosives, *B.*, 693.
- Kostrin, *K.*, cracking [of mazout] under low pressure, *B.*, 591.
- separation of fractions and the size and shape of rectification columns, *B.*, 657.
- treatment of Baku lubricating oil distillates by German plant, *B.*, 882.
- Kostytschev, *S.*, and Chomitsch, *A.*, alcoholic fermentation. XV. Fermentation by yeast macerate, *A.*, 923.
- Kostytschev, *S.*, and Faërmann, *V.*, alcoholic fermentation. XIV. Fermentation of polyhydric alcohols by yeast, *A.*, 673.
- alcoholic fermentation. XIV. Zymin fermentation, *A.*, 923.
- Kostytschev, *S.*, and Schvezova, *O.*, nitrate reduction by *Azotobacter*, *A.*, 447.
- Kostytschev, *S.*, and Soldatenkov, *S.*, alcoholic fermentation. XVII. Pyruvic acid as an intermediate product of alcoholic fermentation, *A.*, 923.
- Kotake, *M.*, toad poisons. I. Composition of Chinese drug "Senso." II. Poisonous constituents of secretion of Japanese toad (*Bufo bufo japonicus*), *A.*, 1138.
- Kotake, *M.*, and Fujita, *Y.*, preparation of esters, *A.*, 990.
- Kotchergine, (*Mlle.*) *E. M.*, transformation of benzoylmethylcarbinol into acetylphenylcarbinol by sulphuric acid and under the conditions of alcoholic fermentation, *A.*, 752.
- Kotchergine, (*Mlle.*) *E. M.* See also Favorski, *A. E.*
- Kotelnikov, *N.*, and Bass, *I.*, dry chrome tanning, *B.*, 795.
- Kothari, *D. S.* See Deodhar, *G. B.*, and Saha, *M. N.*
- Kotjukov, *I. I.*, theory of the meso-structure of organic compounds, *A.*, 392, 1173.
- Kotwal, *Y. N.* See Fowler, *G. J.*
- Koulen, *K.* See Küster, *W.*
- Kovarik, *A. F.*, behaviour of small quantities of radon at low temperatures and low pressures, *A.*, 3.
- Kowalczewski, *I.* See Zawadzki, *J.*
- Kozeschkov, *K. A.*, action of metallic tin on methylene halides, *A.*, 1212.
- Kozhevnikov, *A.* See Tulakov, *N.*
- Kozik, *S.*, refractive indices and rotatory power of sodium rubidium tartrate, *A.*, 348.
- Kozuka, *K.*, inner secretion of the pancreas. VI. Substance in human urine which diminishes the blood-sugar, *A.*, 448.
- Kraay, *G. M.*, corroding action of sodium fluosilicate on aluminium, *A.*, 971.
- Krämer, *E.* See Weil, *H.*
- Kraemer, *E. O.*, and Fanselow, *J. R.*, optical activity and colloidal behaviour of aqueous gelatin dispersions, *A.*, 837.

- Kraemer, M. H., high-frequency [induction] furnace with rotating spark-gap and variable frequency, B., 759.
- Kraemer, W., demonstration of crystallisation processes by the streak method. I. and II., A., 986.
- Kraft, B. See Brünig, A.
- Kraftmetall Aktiebolaget, and Kolb, R., process and apparatus for casting metal into moulds, (P.), B., 338.
- Kraft-Phenix Cheese Co. See Robinson, S. K.
- Kraiczek, R. See Sauerwald, F.
- Krais, P., tensile testing of single wool fibres, B., 443.
- Krajčinovič, M. See Marek, I. and Vavon, G.
- Krajevski, N. A., and Vedenski, N., surface activity of bilo-acids. I., A., 320.
- Krakauer, Emil. See Kailan, A.
- Krakauer, Erich. See Koller, G.
- Krakowetz, B. See Margosches, B. M.
- Krall, S. See Shepard, N. A.
- Kramer, B. See Shear, M. J., and Shelling, D. H.
- Kramer, E., and Hartstoff-Metall A.-Ges. (Hametag), metal powder and method of producing it, (P.), B., 677.
- Kramer, M. M., Latzke, E., and Shaw, M. M., raw and prepared milks as sources of calcium and phosphorus for the human subject, A., 1275.
- Kramer, R. See Kohn, M.
- Kramer, R. L., and Du Pont de Nemours & Co., E. I., cellulose ester composition, (P.), B., 810.
- Kramer, R. L. See also Tanberg, A. P.
- Kramers, H. A. See Kronig, R. de L.
- Krane, W., metabolism with regard to calcium supply, A., 442.
- Kraner, H. M., and Fessler, A. H., vacuum treatment of clay slips and bodies, B., 858.
- Kraner, H. M. See also Fessler, A. H.
- Kranig, J., carbonatocobaltamines, A., 1202.
- Krannich, W. See I. G. Farbenind. A.-G.
- Kranz, F. H., and National Aniline & Chemical Co., Inc., production of aromatic ketonic compounds, (P.), B., 474.
- Kranz, H. W., formation of crystals within the red blood corpuscle, A., 661.
- Krase, N. W., nitrogen-oxygen-nitrogen oxide equilibria, A., 477.
- Krase, N. W., and Mackey, B., new high-temperature fixation reactions of nitrogen, A., 1324.
- Krasikov, I. I., and Ivanov, I. T., solubility of salts in saturated solutions of other salts, A., 700.
- Krasilchikov, B. E., crystallisation of second-product [sugar] fill-mass, B., 684.
- washing the filter-press mud [in sugar manufacture], B., 685.
- Krasilchikov, B. E. See also Nakhmanovich, M. I.
- Krasnikov, A. See Seljakov, N.
- Krasnov, F. See Rosen, I.
- Krass, F., and Schrader, G., cyanogen compounds of the platinum metals. II. Cyanogen compounds of ruthenium, A., 856.
- Krassnosselski-Maximov, T. A. See Maximov, N. A.
- Kratschev, G. See Balarev, D.
- Kratz, H. See Magnus, A.
- Kratzert, J. See Miehr, W.
- Kraus, C., and Grasselli Dyestuff Corporation, vat dyes of the isatin-oxythionaphthen group, (P.), B., 226.
- Kraus, C. A., Callis, C. C., and Standard Development Co., preparation of metals [sodium alloys] for chemical uses, (P.), B., 270.
- Kraus, C. A., and Johnson, E. W., electrical conductivity of tellurium and of liquid mixtures of tellurium and sulphur, A., 1181.
- Kraus, C. A., and Seward, R. P., influence of salts on the solubility of other salts in non-aqueous solvents, A., 1182.
- Kraus, C. E., building cement or plaster, (P.), B., 15.
- Kraus, E., and Fabrik van Chemische Producten, manufacture of sulphurised derivatives of phenols, and of naphthols, (P.), B., 924*.
- Kraus, J. See Edlbacher, S.
- Krause, A., ferric acetates, A., 363.
- oxidation of ferrous hydroxide in air, A., 1202.
- Krause, E., and Polack, H., valency problem of boron. III. Valency phenomena of boron in boron tricyclohexyl and boron tri-*p*-tolyl, A., 435.
- Krause, E., Roka, K., and Holzverkohlungs-Ind. Aktien-Gesellschaft, chlorination of saturated hydrocarbons, (P.), B., 224.
- manufacture of formaldehyde from methylene dichloride, (P.), B., 845.
- Krause, E. See also Siemens & Halske A.-G.
- Krause, F., presence of a lactacidogen-like substance in glands. II., A., 664.
- Krause, F. See also Edlbacher, S.
- Krause, O., electrical insulating materials, B., 305.
- Krauskopf, F. C. See Swartz, C. E.
- Krauss, F., ruthenium, A., 606.
- compounds of osmium tetroxide, A., 1202.
- Krauss, F., and Schrader, G., cyanogen compounds of the platinum metals. III. Cyanogen compounds of osmium, A., 1124.
- cyanogen compounds of the platinum metals. IV. Cyano-oxo-salts of osmium, A., 1230.
- Krauss, G. See Ramann, E.
- Krauss, W. E., non-protein nitrogen in certain dairy rations and partition of nitrogen in the urine produced thereon, B., 137.
- Krauss, W. E. See also Hunt, C. H.
- Krausz, G. See Viterbi, E.
- Kraut, H., detection of yeast in the presence of hydrolysed animal products, B., 314.
- Kraut, H., and Bumm, E., co-enzyme of glycolysis from tumours, A., 1274.
- Kraut, H., Frey, E. K., and Bauer, Erwin, circulatory hormone. II., A., 798.
- Kraut, H., and Rubenbauer, H., liver esterase, its purification and stability, A., 671.
- Kraut, H. See also Frey, E. K.
- Krauz, C. K., and Hrach, V. F., drying of dammar oil varnishes, B., 902.
- Krebs, H. A., action of carbon monoxide and light on hæmin catalysis, A., 538.
- copper in human blood-serum, A., 1391.
- Krebs, H. A. See also Warburg, O.
- Krebs, R. P. D. See Maximov, J.
- Kreft, H. E., secondary electron emission from tungsten, A., 99.
- critical primary velocities in the secondary electron emission of tungsten, A., 341.
- Krehbiel, J. F. See Orton, E., jun.
- Kreismann, P., manufacture of [vegetable] glue, (P.), B., 457.
- Kreitmaier, H., hypervitaminosis by large doses of vitamin-D, A., 1406.
- Krejci, A., piscite, A., 1210.
- Krembs, E. See Dietzel, R.
- Kremers, H. C., electrolytic rectifier, (P.), B., 823.
- Kremers, H. C., and Thomas, D. C., use of mischmetal as an electrolytic rectifier, B., 822.
- Kremers, H. C., and Yntema, L. F., carbon resistor furnaces for laboratory use, A., 984.
- Kremers, H. C. See also Kleinheksel, J. H., and Neckers, J. W.
- Kremlev, L. L. See Belkina, L. G.
- Krenn, J., milk from sick cows, B., 384.
- Křepelka, H., and Cervinka, J., magnesium peroxide, A., 141.
- Křepelka, J., luminescence of mercurous chloride of standard purity, A., 378.
- Kreps, E. M., mutual relation of carbon dioxide and p_H in sea-water of varying salt content, A., 267.
- Kress, O., and American Lakes Paper Co., bleaching of paper [sulphate] pulp, (P.), B., 155.
- Krestinskaja, V. N., and Jakovleva, V. S., "acclimatisation phenomenon" in the coagulation of arsenious sulphide sols by barium chloride, A., 236, 587*.
- Krestinski, V., and Marjin, V., isopropylacetylenylcarbinol and two stereoisomeric forms of diisopropylbutinenediol, A., 733*.
- Krestinski, V., and Solodki, F., application of the Merling reaction to aldehydes; synthesis of isopropylacetylenylcarbinol, A., 739*.
- Krestovnikov, A., action of light on the decolorisation process in a dehydrogenase-methylene-blue system, A., 445.
- Kreth, W. See Möller, W.
- Kretschmann, E., electronic theory of metals from the point of view of Fermi's statistics, A., 823.
- superconductivity according to the Schrödinger wave-equations and the Fermi statistics, A., 1082.
- Kretschmar, W. See Menzel, H.
- Kreulen, D. J. W., determination of melting points of ash in coal, B., 4.
- spontaneous ignition of coal, B., 145.
- comparison of the methods commonly used in Germany and Holland for determining the content of volatile matter of coals, B., 249.
- melting points of coal ash, B., 322.
- determination of the reactivity of coke, B., 468.

- Kreulen, *D. J. W.*, humic acids; pyrohyatomelanin acid, a new compound isolated from Merck's humic acid, B., 555.
strength [against impact] and hardness of various types of coal, B., 734.
- Kreutzer, *C.*, systems iron-silicon, iron-chromium, and iron-phosphorus, A., 841.
- Kreybig, *L. von*, laboratory methods for determining the form in which phosphatic fertilisers should be applied to different soils, B., 938.
- Krijgsman, *B. J.*, stalagmometric determination of lipases, A., 1282.
- Krilenko, *N.*, determination of phosphate as magnesium pyrophosphate, A., 1346.
- Krimpen, *J. van*. See Böeseke, *J.*
- Krish, *W.* See Völtz, *W.*
- Krishna, *B. H. R.*, and Sreenivasaya, *M.*, determination of pyruvic acid, A., 1292.
- Krishna, *P. G.*, nitrogen fixation by soil micro-organisms, B., 724.
soil reaction and nitrogen fixation, B., 764.
- Krishna, *S.*, and Das, *B.*, gas-volumetric determination of SO_2H in organic sulphinic acids, A., 82.
- Krishna, *S.*, and Ram, *N.*, determination of tannic acid, A., 660.
- Krishna, *S.*, and Singh, *S.*, action of carbon tetrachloride on certain mercaptans, A., 173.
determination of sulphinic group and ferric [iron], A., 536.
- Krishna, *S.*, and Swarup, *J.*, determination of [labile] halogens in organic compounds, A., 536.
- Krishnamurti, *P.*, union of benzoylacetone with organic bases in presence of salicylaldehyde. II., A., 411.
relation between chemical constitution and X-ray diffraction in liquids. I. Mono- and di-substituted benzene derivatives, A., 691.
X-ray diffraction and its bearing on molecular complexity in the liquid state, A., 1078.
X-ray diffraction in aqueous solutions and liquid mixtures. I., A., 1079.
- Krishnan, *K. S.*, influence of temperature on the Raman effect, A., 1306.
- Krishnan, *K. S.* See also Raman, *C. V.*
- Krishnaswami, *K. R.*, sorting, classification, and briquetting of chrome and manganese ores, B., 19.
- Kriss, *B.*, and Pollak, *L.*, elimination of chlorine in hepatic disease after treatment with various chlorides, A., 543.
- Kritchevsky, *V.*, hair dye, (P.), B., 332.
- Kritchevsky, *V.*, and Prutsman, *H. C.*, dye soaps, (P.), B., 718.
- Krivobok, *V. N.*, Larsen, *B. M.*, Skinkle, *W. B.*, and Masters, *W. C.*, characteristics of low-carbon manganese steel, B., 336.
- Kriwsky, *I.* See Astanin, *P.*
- Kriz, *S.*, energy losses in arc furnaces for steel, B., 159.
- Krizevsky, *O. K. A.*, manufacture of maize starch and the extraction of the residues and maize oil, B., 685.
- Kroeber, *T.* See Naam. Vennoots. Internat. Oxygenium Maatschappij "Novadel."
- Kröger, *C.* See Tammann, *G.*
- Kröger, *M.*, double refraction of caoutchouc in the deformed and undeformed state, A., 707.
lamellar packing of caoutchouc, B., 532.
- Kröger, *M.*, and Staude, *H.*, light absorption of stretched and unstretched rubber and of isoprene, B., 868.
- Kröger, *M.* See also Le Blanc, *M.*
- Kröner, *W.*, danger of mercury vapour, B., 350.
- Kröner, *W.* See also Abderhalden, *E.*
- Kroepelin, *H.*, membrane hydrolysis at indicator papers, A., 496.
use of monochromatic indicators in the double-wedge colorimeter, A., 1164.
- Kröper, *H.*, defects in methods of determining unsaponified neutral fat in soaps, B., 761.
- Kroetz, *C.*, biochemistry of irradiation. VI. Influence of X-rays on the permeability of the surviving frog's skin. VII. Influence of X-rays on the composition of an artificially introduced peritoneal fluid, A., 200.
- Krogh, *A.*, and Hemmingsen, *A. M.*, destructive action of heat on insulin solutions, A., 1287.
- Krol, *W.* See Magidson, *O.*
- Kroll, *W.*, manufacture of alloys of lead with the alkaline-earth metals, (P.), B., 20.
- Krollpfeiffer, *F.* [with Branscheid, *F.*, Thorn, *F.* and Schneider, *K.*], transformation products of anthranol and oxythionaphthen, A., 889.
- Krollpfeiffer, *F.*, and Schneider, *K.*, 4-keto-2:3-thionaphthen-5:6-dihydro- γ -pyran, A., 896.
- Krollpfeiffer, *F.*, and Seebaum, *H.*, "gas benzene" of the Gelsenkirchener Bergwerks-A.-G. tar works, B., 511.
- Kronenberger, *F.*, and Radt, *P.*, alimentary hyperglycaemia with levulose feeding, A., 197.
- Kronfeld, *P.* See Lieben, *F.*
- Kronig, *R. de L.*, Zeeman effect in band spectra, A., 340.
theory of the Faraday effect in gases, A., 342.
theory of the Kerr effect in gases, A., 343.
interpretation of band spectra. I. and II., A., 456, 1067.
- Kerr and Faraday effects in gases. II. Quadratic effect, A., 468.
rotation of the nitrogen nucleus, A., 685.
- Kronig, *R. de L.*, and Kramers, *H. A.*, theory of absorption and dispersion in X-ray spectra, A., 575.
- Kropacsy, *S.* See Lacroix, *H.*
- Kropf, *A.*, alloys of high m. p., (P.), B., 575.
- Kropff, *H.*, extension of malt analysis by a flavouring-test, B., 281.
- Kropp, *W.*, and Winthrop Chemical Co., Inc., pharmaceutical compound, (P.), B., 837.
- Kropp, *W.* See also I. G. Farbenind. A.-G.
- Kross, *W.*, Neubauer seedling method [for determining plant nutrients in soil], B., 907.
- Krotov, *B. P.*, necessity of the physical-chemical study of the reaction $2\text{CaCO}_3 + \text{MgSO}_4 \rightleftharpoons \text{CaCO}_3 + \text{MgCO}_3 + \text{CaSO}_4$, A., 864.
systematics of salt lakes, A., 864.
- Krüger, *D.*, diffusion researches with rubber solutions, B., 377.
micro-method for the determination of the nitrogen content of nitrocellulose; fractionation of nitrocellulose by diffusion, B., 400.
calibration liquids for viscosimeters, B., 467.
- Krüger, *D.* See also Loeb, *L. F.*
- Krüger, *E.*, action of nitrogenous fertilisers on the quality of potatoes for "seed" and on the composition of potatoes grown on four different soils, B., 583.
- Krüger, *F.*, and Nähring, *E.*, X-ray examination of passivity, A., 349.
- Krüger, *F.*, Reinkober, *O.*, and Koch-Holm, *E.*, residual rays of mixed crystals, A., 347.
- Krüger, *Franz.* See Foerster, *F.*
- Krüger, *Frederich.* See Paul, *T.*
- Krueger, *R. H.* See Engelhard, Inc., *C.*
- Krüll, *H.* See Schönberg, *A.*
- Krng, *H.*, rapid analysis of bronze and brass without electrolysis, B., 930.
- Kruger, *J. H.*, and Bechdel, *S. I.*, normal deposition of mineral in the bones of dairy calves, A., 1051.
- Kruger, *J. H.* See also Mitchell, *H. H.*
- Krumholz, *P.* See Feigl, *F.*
- Krummenacher, *E.* See Society of Chemical Industry in Basle.
- Krumpel, *O.* See Spiegel-Adolf, *M.*
- Krupp, Akt.-Ges., *F.*, manufacture of iron and steel or iron alloys and steel alloys, (P.), B., 197.
sintered hard-metal alloys and articles made thereof, (P.), B., 198.
manufacture of articles hardened in their marginal layers by nitrogenation, (P.), B., 269.
steel alloys, (P.), B., 451.
raising the yield point of steel alloys, (P.), B., 608.
steel alloys possessing high strength at high temperatures, (P.), B., 756.
manufacturing compound metal sheets, (P.), B., 821.
- Krupp Akt.-Ges., *F.* See also Fry, *A.*, and Hauptmeyer, *F.*
- Krupp Akt.-Ges. Friedrich-Alfred-Hütte, *F.*, operating shaft furnaces, particularly blast furnaces, (P.), B., 931.
- Krupp Grusonwerk Akt.-Ges., *F.*, apparatus for heating oleaginous materials, (P.), B., 99.
[stop device for] apparatus for expressing liquid constituents from materials of various kinds, (P.), B., 145, 176.
working-up ores and metallurgical products of various kinds containing volatilisable metals, (P.), B., 412.
apparatus for recovering salts from hot solutions, e.g., potassium chloride liquors, (P.), B., 602.
treatment of sulphide ores or sulphidic metallurgical products, (P.), B., 862.
presses for the treatment of moist materials, (P.), B., 879.
- Krustinsons, *J.* See Centnerszwer, *M.*
- Krutz, *H. R.*, modern colloid chemistry, A., 1185.

- Kruyt, H. R., Roodvoets, A. C. W., and Willigen, P. C. van der, cataphoresis, electrical charge, critical potential, and stability of colloids, A., 17.
- Kruyt, H. R., and Willigen, P. C. van der, cataphoresis and [electric] charge, A., 18.
- measurement of cataphoresis in suspensions, A., 238.
- streaming potential and colloid stability. II., A., 1091.
- Krylov, E. J. See Mokruschin, S. G.
- Kryński, B. See Konarzewski, J.
- Kryński, J., mercuration of naphthalene derivatives, A., 655.
- Krzikalla, H. See I. G. Farbenind. A.-G.
- Kubassov, N. A. See Oberhard, I. G.
- Kubelka, V., centrifuging as an aid to tannin analysis by the shake method, B., 379.
- Kubelka, V., and Wagner, Joachim, adsorption and swelling. II., A., 1318.
- Kuhierschky, bromine analysis, B., 190.
- Kubina, H., and Plichta, J., volumetric determination of bismuth, A., 39.
- action of hydrazine on quinquivalent arsenic in faintly acid solutions, A., 972.
- Kubota, B., and Hanai, S., micro-analytical determination of sulphur in organic compounds by titration, A., 1106.
- Kubowitz, F. See Endres, G.
- Kucharkova, A. See Zaleski, V.
- Kucyński, T., separation of crude-oil emulsions by chemical methods, B., 469.
- Kuczynski, W., velocity of dissolution of aluminium, A., 251.
- Kudra, O. See Finkelstein, W.
- Kübler, H. See Pfeiffer, P.
- Kuechler, A. H. See Wheeler, E. S.
- Küchler, E. See Verein f. Chem. Ind. A.-G.
- Kühl, G. W., suction flask for quantitative analysis, A., 389.
- Kuehler, W. P., and Shaneman, S., determination of aluminium in steel, B., 572.
- Kühlwein, F. L., and Chemische Fabrik in Billwärdor vorm. Hell & Sthamer Akt.-Ges., production of high-grade products from raw coal, (P.), B., 325.
- Kühlwein, F. L. See also Chem. Fabr. in Billwärdor vorm. Hell & Sthamer A.-G.
- Kühn, E., value of cholesterol determinations in blood in lead poisoning, A., 326.
- Kühn, M. See Braun, J. von.
- Kühnau, J., decomposition of β -hydroxybutyric acid by liver enzymes. I. Preparation and properties of the enzyme; detection of the products of decomposition. II. Oxidation intensity of the system, A., 1401.
- Kükenthal, H. See Hüttig, G. F.
- Künkele, M., etching agent for determining sulphide inclusions in technical iron, B., 55.
- Künle, O., chemical changes occurring in the coking and oxidation of a bituminous coal, B., 803.
- Künstner, G. See Waldschmidt-Leitz, E.
- Küntzel, A., effect of dilute solutions of gallotannic acid on gelatin, B., 829.
- Künzel, K., manufacture of glass in a shaft furnace, (P.), B., 711.
- Küpper, A., reciprocal system: water, sodium chloride, magnesium sulphate, magnesium chloride, sodium sulphate, A., 20.
- Küppers, J. See Gewerkschaft Sachtleben.
- Kürschner, K., vanillin from sulphite[cellulose] waste liquors, B., 292.
- Kürsteiner, P. See Abelin, I.
- Kürti, L., and Györgyi, G., uric acid metabolism and insulin, A., 331.
- Küster, E., and Koulen, K., interferometric and chemical detection of Abderhalden's serum enzymes, A., 921.
- Küster, W. [with Job, A., and Greiss, M.], blood. V. Isomeric non-alkylated hæmins, A., 658.
- Küster, W. [with May, K., Wolf, R., Eberle, A., and Mandry, G.], methyl- β -hydroxyethylmaleic anhydride and the hydrolysis of α -hydroxynitriles with sulphuric acid. III., A., 618.
- Küster, W., and Bosch, H., porphyrins. XIV. Addition of halogen to hæmin, A., 657.
- Küster, W., and Fleischmann, R., porphyrins. XV. Porphyrin formation from monoethylated hæmins, A., 657.
- Küster, W., and Hörth, O., occurrence of ergosterol in ox blood, A., 661.
- Küster, W., and Kimmich, K., blood pigments. IV., A., 658.
- Küster, W., and Koppenhöfer, G. F., blood pigment, A., 82.
- pyrrole derivatives. II., A., 651.
- Küster, W., Kumpf, W., and Köppel, W., hydrolysis of wool by sodium sulphide, A., 535.
- Küster, W., Maurer, H., and Packendorff, K., porphyrins. XVI. γ -Chloro- α -dimethylitaconic acid, A., 618.
- Küster, W., and Neunhöffer, O., fluorohæmin, A., 658.
- Küster, W., and Schoder, E. [with Bahl, A., Daur, R., Schairer, W., and Massong, K.], lignin. II., A., 48.
- Küstner, H., measurement of X-radiation in R-units, A., 212.
- Küttner Akt.-Ges., F., method of treating cakes of artificial silk manufactured by the centrifuge-spinning process, (P.), B., 854.
- Kugel, M., electrolyte for lead accumulators, (P.), B., 864.
- Kugel, M., electrolyte for accumulators, (P.), B., 864.
- Kugel, M., and Grasselli Dyestuff Corporation, vat dyes of the anthraquinone series, (P.), B., 46*.
- Kuhn, A., vibrating apparatus for screening, sorting, drying, etc., (P.), B., 319.
- metal content of homœopathic iron powders, B., 654.
- Kuhn, G. See Eucken, A.
- Kuhn, H., oscillation quantum of the mercury molecule, A., 686.
- Kuhn, J., and Drechsel, O., influence of calcium cyanamide on the bacterial life of soils, B., 380.
- Kuhn, M. See Braun, J. von.
- Kuhn, P., and Loeser, A., rapid determination of organic iodine in body fluids, A., 1064.
- Kuhn, R., and Albrecht, O., stereochemistry of aromatic compounds. V. Racemisation of optically active diphenic acids, A., 63.
- stereochemistry of aromatic compounds. VI. An optically active vat dye without an asymmetric carbon atom; *d*- and *l*-1:1'-dianthraquinonyl-2:2'-dicarboxylic acid, A., 1015.
- stereochemistry of aromatic compounds. VII. Inclination of rings in α -dinaphthyls, A., 1242.
- Kuhn, R., and Furter, M., active hydrogen atoms of hæmin, A., 312.
- Kuhn, R., and Machemer, H., constitution of the metallic complexes of indigotin, A., 306.
- Kuhn, R., and Seyffert, C., transformation of hæmin and *meco*-hæmin into isomerides, A., 430.
- Kuhn, R., and Wagner-Jauregg, T., stereochemistry of the tetrahedral carbon atom. VII. Number of the isomeric chloromalic acids. VIII. Configuration of the chloromalic acids. IX. In what phase of the reaction does re-arrangement of the substituents occur during the Walden inversion? A., 506.
- Kuhn, R., and Wassermann, A., configuration of polymethylenedicarboxylic acid. II. Adsorption of the hexahydrophthalic acids, A., 231.
- polarity of substituents in the benzene nucleus, A., 239.
- dissociation constants of *o*-halogenobenzoic acids, A., 240.
- configuration of polymethylenedicarboxylic acids. I. Dissociation constants of cyclohexanedicarboxylic acid, A., 240.
- dissociation constants of phthalic acids, A., 240.
- conjugation relationships in naphthalene, A., 240.
- configuration of polymethylenedicarboxylic acids. III. *cis*-cyclobutane-1:2-dicarboxylic acid, A., 885.
- dependence of the catalytic and oxidative actions of iron on its condition of adsorption, A., 1044.
- Kuhn, R., and Winterstein, A., conjugated unsaturated compounds. I. Synthesis of diphenyl derivatives. II. Synthesis of diphenylene derivatives. III. Addition of hydrogen and bromine. IV. Molecular compounds and colour reactions, A., 281.
- conjugated unsaturated compounds. V. Constitution of carotin and bixin, A., 644.
- Kuhn, R., Winterstein, A., and Wiegand, W., conjugated unsaturated compounds. VI. Colouring matter from Chinese *Gardenia*; occurrence of conjugated unsaturated colouring matters in plants, A., 869.
- Kuhn, R. See also Willstätter, R.
- Kuhn, W., strength of anomalous dispersion in the non-luminous vapour of thallium and cadmium, A., 100.
- Kuhnert, W. A., recovery of sodium bicarbonate from brines, (P.), B., 641.
- Kuipers, J. P. See Nellensteyn, F. J.
- Kukarkin, A., action of sulphuric acid on leather, B., 828.
- Kukharensko, I. A., and Kartashev, A., sucrose crystallisation, B., 540.
- Kulas, C., production of artificial resin, (P.), B., 493.
- Kulikov, V., ionic equilibrium, phagocytosis, and age of colloids, A., 1187.
- stabilisation of colloids, A., 1187.

- Kulikov, V., and Nikolskaja, Z. I., influence of the medium on the growth of tubercle bacilli, A., 1286.
- Kulikov, V., and Smirnov, P., toxin and anatoxin of diphtheria, A., 90.
physico-chemical nature of diphtheria toxin and anatoxin, A., 674.
- Kulikova, L. See Gudris, N.
- Kullgren, C., manufacture of cellulose; alkalinity changes, and the action of sodium sulphide [in the cooking process], B., 257.
- Kultjugin, A., and Ivanovski, N., adsorption by erythrocytes. I. Adsorption of alanine, A., 1390.
- Kulvarski, R. See Frumkin, A.
- Kumagai, K. See Yoshioka, T.
- Kumagai, T., Kawai, S., and Shikinami, Y., guanidine derivatives which lower the blood-sugar, A., 670.
- Kumanomido, S., metabolism of embryonic tissue in serum, A., 544.
- Kumickel, W., fractional precipitation and ultrafiltration of cellulose nitrate, A., 476.
- Kummer, R., continuous vacuum distillation apparatus, A., 266.
prevention of frothing during vacuum evaporation, B., 877.
- Kumpt, W. See Küster, W.
- Knmpfmiller, H. See Müller, Robert.
- Kuni, V., and Nikolski, S., determination of small quantities of acetic acid in air in presence of carbon dioxide, A., 617.
- Kunitz, M., and Simms, H. S., dialysis with stirring, A., 928.
- Kunitz, M. See also Northrop, J. H.
- Kunitz, W., tourmaline and mica groups, A., 148.
rock-forming alkali hornblendes, A., 730.
- Kunsman, C. H., thermal decomposition of ammonia on tungsten, molybdenum, and nickel, A., 1101.
- Kunst, B. See Plotnikov, J.
- Kunstharzfabrik F. Pollak Ges.m.b.H., production of porous artificial compositions, (P.), B., 531.
manufacture of phenol-formaldehyde condensation products, (P.), B., 720.
manufacture of a powder which can be pressed by the condensation of urea or its derivatives and formaldehyde, (P.), B., 720.
- Kuntze, W., dependence of the elastic coefficient of extension (α) of copper on the previous [heat and mechanical] treatment, B., 525.
- Kuntze, W., Sachs, G., and Sieglerschmidt, H., elasticity [of metals]: static and endurance tests, B., 303.
- Kunz, A. H. See Popov, S.
- Kunz, F., coating of iron articles with a good heat-conducting metal, (P.), B., 575.
- Kunze, P., absolute intensity of the mercury line 2537 Å., A., 805.
- Kunze, W. See Pfeiffer, P.
- Kuppel, H., and Siméant, L., electrolytic treatment for the cylinders of rotary printing machines to eliminate polishing and wear, (P.), B., 129.
- Kupper, A., intensity of spectral lines, A., 929.
- Kuramochi, K. See Okada, S.
- Kurata, M. See Komatsu, S.
- Kurbatov, J., and Kargin, V., change of the green colour of beryl into blue, A., 730.
- Kurdjumov, G., and Kaminsky, E., structure of quenched carbon steel, A., 1178.
- Kurdjumov, G. See also Seljakov, N.
- Kurihara, K., hydrocarbons in a higher fraction of low-temperature tar, B., 776.
- Kurilsky, R. See Rathery, F.
- Kurnakov, N. S., combination and space, A., 366.
chemical equilibrium and space [geometry], A., 344.
- Kurnakov, N. S., and Černyh, V., hydrotalcite and pyroaurite, A., 268.
natural hydrated magnesite, A., 268.
serpentine and chlorite, A., 864.
- Kurnakov, N. S., and Nikolaiev, V., phase diagram of sodium nitrate, A., 20.
- Kurnakov, N. S., and Rode, E. J., chemical nature of natural hydrates of ferric oxide, A., 41, 391*.
- Kurnakov, N. S. See also Grigoriev, A. T.
- Kurochkin, K. A., butter-fat of colostrum, B., 374.
- Kurosu, S., histochemical detection of gold; distribution of "sanoerysin" in, and its elimination from, the normal and tuberculous body, A., 549.
- Kurotschkin, A. A., velocity coefficients of hydrolysis of nitroacetanilide and of the secondary reaction of hydrolysis of p-nitroaniline with elimination of ammonia, A., 1333.
- Kurrelmeyer, B., photo-electric conductivity of sulphur, A., 102.
- Kurrelmeyer, B. See also Cox, R. T.
- Kursanov, D. N., attempt to dehydrate benzhydrol by Tschugayev's xanthate method, A., 1372.
- Kursanov, D. A. See also Nametkin, S. S.
- Kurt, P. A., production of moulded articles from molybdenum and its alloys, (P.), B., 758.
- Kurtenacker, A., and Czernotzky, A., conversion of thiosulphates into polythionates with the aid of catalysts, A., 1195.
compound of sulphur with sulphurous acid, A., 1201.
higher polythionates, A., 1201.
- Kurth, E. F. See Sherrard, E. C.
- Kurth, H. See Hertel, E.
- Kurtz, H., absorption of carbon K-radiation of carbon, nitrogen, and oxygen, A., 451.
- Kurylowicz, B. See Terlikowski, F.
- Kus, T. G., and Chicago Trust Co., coke oven, (P.), B., 701.
- Kusakari, H., and Tsutsui, H., cetacea. XXXVIII. Calcium, magnesium, and phosphorus in various organs [of fin-back whale], A., 85.
- Kuschmann, J. See Ruer, R.
- Kusenack, W. See Fringsheim, H.
- Kuser, J. S., action of ethylamine and diethylamine on isosafrole oxide, A., 999.
- Kusnetzov, A. I. See Mirlesse, L.
- Kusnetzov, J., liévrito (ilvaite) of the arsenic deposits at Djimara, N. Caucasus, A., 1210.
- Kusnetzov, W. D., internal friction and flow-point in lead, A., 1316.
- Kuss, E. See I. G. Farbenind. A.-G., and Mittasch, A.
- Kusmann, A., and Scharnow, B., theory of Heusler's alloy, A., 576.
- Kusmann, H. W., broadening of hydrogen chloride lines by foreign gases, A., 812.
- Kusmaul, W. See Stoll, A.
- Kutschera-Aiehbegen, H. See Kappeler, R.
- Kutter, F., linear or logarithmic calculation of colour in malt analysis, B., 500.
- Kuttner, T., and Cohen, R. H., micro-colorimetry. I. Molybdic acid-stannous chloride reagent; determination of phosphate and calcium in pus, blood-plasma, and cerebrospinal fluid, A., 336.
- Kuwada, K. See Norbury, A. L.
- Kuwata, T. See Tanaka, Y.
- Kuzel, N. See Ueno, S.
- Kuzmenko, S. M., reactions in gelatin gels, A., 1187.
- Kvalnes, H. M. See Hogness, T. R.
- Kwapiszewski, J. See Grischkevitch-Trochimovski, E.
- Kwieciński, L., and Marchlewski, L., absorption of ultra-violet light by dextrose, laevulose, and lactose, A., 346.
absorption of ultra-violet light by organic compounds. IX., A., 1071.
- Kwieciński, L., Meyer, J., and Marchlewski, L., absorption of ultra-violet light by carbohydrates, A., 812.
- Kwinichidze, M. See Terlikowski, F.
- Kwong, S. C. See Karrer, P.
- Kyle, C. F. See Shollenberger, J. H.
- Kynoch, Ltd. See Brownsdon, H. W.

L.

- Laar, J. J. van, entropy and "entropy constant" of gases and of gaseous mixtures, A., 478.
m. p. line of helium and Nernst's heat theorem, A., 592.
vapour pressures of pure substances, and of binary mixtures; vapour pressures of mercury and graphite, A., 698.
specific heats of liquids and saturated vapours, A., 826.
relation between deviations of the vapour-pressure curves of binary mixtures of normal substances from the linear law, and the heats of mixing in the liquid phase, A., 1327.
- La Barre, J., physiological variations of the internal secretion of the pancreas. I. Demonstration of a physiological insulinæmia. II. The pneumogastric, a nerve causing insulin secretion. III. Role of the nervous system in the regulation of physiological insulinæmia provoked. IV. Hyperinsulinæmia following hyperglycæmia by the injection of dextrose. V. Hyperinsulinæmia following the injection of adrenaline, A., 799, 1287*.

- La Barre, J. See also Zunz, E.
 Labarre, J. See Bertrand, G.
 La Bastide, G. L. C. See Wibaut, J. P.
 Labbé, M., Nepveux, F., and Hiernaux, effect of insulin on nitrogen metabolism in diabetes, A., 915.
 effect of insulin on faulty lipid metabolism in acute diabetes, A., 925.
 Labbé, M., Roubeau, H., and Nepveux, F., influence of nickel and cobalt on the hypoglycæmic action of insulin in the rabbit, A., 206.
 action of nickel and cobalt salts on the hypoglycæmic effect of insulin on diabetics, A., 321.
 Labes, R., action of arsenic and related elements. I. Significance of oxygen for arsine-hæmolysis, A., 317.
 action of arsenic and related elements. II. Role of oxygen in hæmolytic activity of hydrogen phosphide or its lowest oxidation product. III. Hæmolytic activity of hydrogen sulphide at increased oxygen concentration. IV. Hæmolysis by hydrogen sulphide; action of colloidal sulphur formed. V. Conditions for hæmolysis by salts of hydrogen iodide, A., 548.
 action of arsenic and related elements. VII. Arsine hæmolysis and effect of colloidal arsenic, A., 913.
 action of arsenic and related elements. VI. Conditions of action of salts of hydrogen sulphide and hydrogen iodide on the nerve-muscle preparation of the frog, A., 920.
 toxic action of nascent tellurium and selenium on enzymes, A., 1053.
 Laboratorium "Tasch" Akt.-Ges., recovery of organic substances from [meat-pickling] liquors, (P.), B., 622.
 Lacassagne, A., action of K-rays of aluminium on certain micro-organisms, A., 798.
 Lachs, H., and Gestel, K., colloidal carbon solutions, A., 1321.
 Lackey, R. W. See Reed, C. I.
 Lackner, T. J. See Kemp, A. R.
 La Corsa, L. U., recovering tin from tin-plate scraps, (P.), B., 645, 758.
 Lacroix, A., rhyolites and hyperalkaline, quartziferous trachytes, with special reference to those of Korea, A., 148.
 composition of basaltic lavas of Indo-China, A., 611.
 lavas of the Sous-le-Vent islands of the Society Archipelago, A., 1110.
 genesis of the jadeite of Burma, A., 1211.
 Lacroix, H., and Kropacsy, S., determination of glycerol in beer, B., 941.
 Lacroix, H. See also Janke, A.
 Lacroute, P., spark spectra of sulphur, selenium, and tellurium in the Schumann region, A., 1065.
 Ladeck, F. See Späth, E.
 Ladenburg, R., paramagnetic rotation of the plane of polarisation, A., 348.
 anomalous dispersion of gases in the excited state. I. Dispersion formula of the quantum theory. II. Anomalous dispersion in excited neon. III. Transition probability and density of excited atoms in neon; statistical equilibrium in the positive column, A., 577.
 Ladenburg, R. See also Asada, T., Carst, A., and Kopfermann, H.
 Ladhams, D. E. See Boyd, D. R.
 Laer, M. van, titration curves of wort and beer, B., 103.
 Laeuger, P., and Geigy Société Anonyme, J. R., manufacture of acid dyes of the phenolphthaleins series, (P.), B., 781*.
 Lafeuille, F., crystalliser [for sugar solutions], (P.), B., 137*.
 Laffitte, P., influence of temperature on the formation of the explosion wave, A., 483.
 Laffitte, P., and Dumanois, P., velocity of the explosion wave, A., 247.
 LaForge, F. B., pyrrolidine derivatives, A., 1256.
 2-, 3-, and 4-benzylpyridines, A., 1260.
 derivatives of pyridine, A., 1260.
 LaForge, F. B., and Hudson, C. S., identity of volemitol and α -sedoheptitol, A., 1213.
 La Franca, S., absorption of uric acid by tissue. II. Relation between absorbed urate and concentration of perfusion liquid, A., 1277.
 Lagache, M., carene, A., 766, 893.
 Lage, E. A., production of photographic plates, films, etc. for indirect three-colour photography, (P.), B., 300*.
 Lagrange, E., and Suarez, E., ultrafiltration of pancreas ferments, A., 550.
 Lagrave, R., isomerisation of aromatic trisubstituted ethylene oxides and the re-arrangement phenomena involved, A., 270.
 Lagrave, R. See also Lévy, (Mlle.) J.
 Lahaut, L. See Capiau, G.
 Lahousse, J. E. G., and Société pour la Fabrication de la Soie "Rhodiaseta," manufacture of hollow artificial textile fibres, (P.), B., 85*.
 Lai, C. F., and Silverman, A., beryllium glass, B., 894.
 Laillet, C., Chaix, A., and Chenail, J., production of synthetic fuel, (P.), B., 115.
 Laing, B. See Brand, J. J. C., and Nielsen, H.
 L'Air Liquide Société Anonyme pour l'Étude et l'Exploit. des Procédés G. Claude, liquefying and separating the constituents of gaseous mixtures at low temperatures, (P.), B., 603.
 L'Air Liquide Société Anonyme pour l'Étude et l'Exploit. des Procédés G. Claude, and Société Chimique de la Grande Paroisse (Azote et Prod. Chim.), carrying out exothermic catalytic chemical reactions, (P.), B., 553, 659, 697.
 Laird, W. G., and Heat Treating Co., treatment of substances with heat, (P.), B., 467*.
 Laissus, J., cementation of ferrous alloys with molybdenum and tantalum, vanadium and cobalt, boron, titanium and zirconium, and uranium, B., 267.
 Lakeshire Cheese Co., heat treatment of cheese, (P.), B., 67.
 Lal, K. See Singh, M.
 Laland, P., and Nyegaard & Co., A/S., bactericidal preparation, (P.), B., 350.
 La Manufacture Scheibler, and Liszkowski, A., printing of alizarin red on non-prepared fabric, B., 49.
 Lamatsch, W. See Fischer, Hans.
 Lamb, A. B. See Hetherington, H. C.
 Lamb, A. R. See Knapheide, M. D.
 Lamb, M. C., American procedure in the colouring and finishing of leather, B., 379.
 dyeing of gloving and clothing leathers, B., 707.
 Lambert, A., and Cosmic Arts, Inc., treatment of natural alkali salts of secondary and tertiary origin, (P.), B., 261.
 Lambert, B., and Clark, A. M., gas-solid equilibria. I. Pressure-temperature equilibria between benzene and (a) ferric oxide gel, (b) silica gel in sealed systems of known and unalterable total composition, A., 131.
 Lambert, P. N. See Hirst, H. R.
 Lambrey, M., absorption spectra of nitric oxide, A., 566, 934.
 Lambris, G., swelling of coal, B., 916.
 LaMer, V. K., and Sandved, K., equilibrium $2K_2Fe(CN)_6 + 2KI \rightleftharpoons 2KFe(CN)_6 + I_2$ in aqueous potassium chloride solutions, A., 1325.
 LaMer, V. K. See also Gronwall, T. H.
 Lamers, K. L. E., determination of dextrose insulin equivalents, A., 331.
 Lampe, B., composition of crude fusel oil according to different methods, B., 208.
 Lampe, B., and Kilp, W., mixtures of ethyl and amyl alcohols and water, A., 1084.
 determination of the fusel oil content of brandy by Rose's method, B., 653.
 Lampe, B. See also Kilp, W.
 Lampe, V., Zielińska, J., and Majewska, J., methysticin, A., 70, 424.
 Lampén, A., quality control in the sulphite pulp industry, B., 564.
 Lampen- & Metallwaren-Fabr. R. Ditmar Gebrüder Brüner Akt.-Ges., and Doman, A., application of thin, reflecting, metal coatings to the surface of flexible or elastic materials, (P.), B., 373.
 Lampitt, L. H., and Hughes, E. B., composition of fruit, B., 242.
 Lampitt, L. H. See also Lyons & Co., Ltd., J.
 Lamprey, R. H. B. See South Metropolitan Gas Co.
 Lamson-Paragon Supply Co., Ltd. See Main, R. D.
 Lancaster, H. M., and Hind, H. L., barley experiments of 1926; malting and analytical results, B., 542.
 Lancefield, R. C., antigenic complex of *Streptococcus hæmolyticus*. II. Chemical and immunological properties of the protein fractions. III. Species-specific substance, A., 924.
 Landa, S., slow combustion of hydrocarbons, A., 392.
 preparation of pentadecic acid, A., 1214.
 oxidation of hexadecylene, A., 1351.
 Landau, L. See Ivanenko, D.
 Landauer, M. See Paul, T.
 Landé, A., entropy of dilute solutions, A., 709.
 Dirac's theory of spinning electrons, A., 811.
 Landé, K. See Schalscha, K.

- Lander, *P. E.*, and Dharmani, *P. L. C.*, digestibility trials on Indian feeding stuffs. III. Punjab hays, *B.*, 835.
- Landers, *W. H.*, manufacture of lithopone, (*P.*), *B.*, 492.
- Landgraf, *A.* See Foerster, *F.*
- Landolt, *H.* See Gränacher, *C.*
- Landsberg, *G.*, [use of Winther's gauze in] spectrophotometry, *A.*, 345.
- Landsberg, *G.*, and Mandelstam, *L.*, new phenomenon of light scattering in crystals, *A.*, 936, 1306.
- Landsbury, *J.* See Amberg, *S.*
- Landsteiner, *K.* See Fürth, *J.*, and Levene, *P. A.*
- Landt, *E.*, decomposition of sucrose by adsorbent carbons, *B.*, 423.
- Landt, *E.* See also Spengler, *O.*
- Landucci, *A.*, and Du Pont-Pathé Film Manufacturing Corporation, manufacture of articles of plastic material, (*P.*), *B.*, 295.
- Lane, *A.* See Hobbs, *W. H.*
- Lane, *C. T.*, and Bieler, *E. S.*, magnetic susceptibility of sodium and potassium, *A.*, 1178.
- Lane, *E. C.* See Smith, *N. A. C.*
- Lane, *F. W.* See Devine, *J. M.*
- Lane, *J. H.*, and Eynon, *L.*, volumetric determination of lactose in presence of sucrose, *B.*, 206.
- Lane, *M. H.* See Rushton, *A. L.*
- Lang, *C.*, and Jungmann, *H.*, action of gallic acid on the sugar and cholesterol content of the blood, *A.*, 794.
- Lang, *G.*, determination of ammonia in sulphonated oils, *B.*, 646.
- Lang, *H.* See I. G. Farbenind. A.-G.
- Lang, *H. R.*, variation of the specific heat of aniline with temperature using the continuous-flow electric method, *A.*, 469.
- Lang, *J. W.* See Thompson, *T. G.*
- Lang, *K.*, formation of glycogen in the wall of the intestine, *A.*, 1397.
- Lang, *K.* See also Hinsberg, *K.*, and Stuber, *B.*
- Lang, *M.*, apparatus for producing clay products, (*P.*), *B.*, 334.
- Lang, *R.*, reaction between chromic acid and manganous salts, *A.*, 605.
- Lang, *R.*, and Zwerfina, *J.*, induction of reaction between chromic acid and a manganous salt by arsenious acid, *A.*, 600.
- electrometric determination of chromic acid in presence of vanadic acid by application of induction and catalysis, *A.*, 982.
- Lang, *R. J.*, spectra of gallium, germanium, and indium, *A.*, 99.
- lowest terms in the spark spectrum of nickel and copper (*Ni II* and *Cu II*), *A.*, 679.
- Lang, *R. J.* See also Green, *J. B.*, Mack, *J. E.*, and Rnsell, *H. N.*
- Láng, *S.*, and Rigo, *L.*, influence of parasympathetic poisons on blood-sugar concentration. II., *A.*, 326.
- Láng, *S.*, and Vas, *M.*, influence of parasympathetic poisons on blood-sugar concentration. I., *A.*, 326.
- Lange, *B.*, depolarisation and light absorption of solutions of colloidal gold, *A.*, 360.
- state of polarisation of the Tyndall beam of colloids, *A.*, 360.
- Lange, *B.* See also Eitel, *W.*
- Lange, *E.*, and Leighton, *P. A.*, heat of dilution of potassium chloride up to infinite dilution, *A.*, 1329.
- Lange, *E.*, and Messner, *G.*, heats of dilution of strong electrolytes and limits of Debye and Hückel's theory, *A.*, 367.
- Lange, *E.*, and Schwartz, *E.*, heats of dissolution and dilution of salts between infinite dilution and saturation. IV. Lithium bromide, *A.*, 593.
- Lange, *F.* See I. G. Farbenind. A.-G.
- Lange, *H.*, and Henning, *N.*, phosphate excretion by surviving tumour sections, *A.*, 914.
- action of potassium cyanide on phosphate excretion of surviving tumour section, *A.*, 914.
- action of narcotics on the phosphate excretion of surviving tumour sections, *A.*, 914.
- further researches on surviving tumour sections, *A.*, 914.
- Lange, *H.* See also Adler, *A.*
- Lange, *M.*, and Kaiser, *L.*, production of non-glowing paper, (*P.*), *B.*, 48.
- Lange, *W.*, and Messner, *G.*, heats of dilution of strong electrolytes in the limiting region of the Debye-Hückel theory, *A.*, 134.
- Lange, *Werner.* See Schwalbe, *C. G.*
- Lange, *Willy.*, salt of hexafluorophosphoric acid, HPF₆, *A.*, 604.
- Langecker, *E.* See Eckert, *A.*
- Langecker, *H.*, reaction of adrenaline with novocaine, *A.*, 553.
- Langelier, *W. F.*, determination of plankton [in water], *B.*, 428.
- Langenbeck, *H.* See Langenbeck, *W.*
- Langenbeck, *W.*, action of cyanogen bromide on tertiary iminoazoles, *A.*, 651.
- organic catalysts. II. Reinforcement of the catalytic activity of isatin by nuclear substitution, *A.*, 771.
- similarities in the catalytic action of enzymes and of definite organic substances, *A.*, 1053.
- Langenbeck, *W.*, and Langenbeck, *H.*, dark-coloured dimeric keten, *A.*, 762.
- Langenheim, *W.* See Ackermann, *H.*
- Langenkamp, *P.* See Merck, *E.*, Chemische Fabrik.
- Langer, *C.*, and Johnson, *C.*, precious metals in the Sudbury [nickel] ores and their recovery, *B.*, 486.
- Langford, *E. J.* See Hammick, *D. L.*
- Langguth, *E.*, treatment of lead-zinc ores containing iron and manganese, (*P.*), *B.*, 789.
- Langguth, *W.*, and Hummel, *C.*, production of photographs in natural colours, (*P.*), *B.*, 503.
- Langmuir, *D. B.* See Langmuir, *I.*
- Langmuir, *I.*, electrical discharges in gases at low pressures, *A.*, 342.
- oscillations in ionised gases, *A.*, 1168.
- Langmuir, *I.*, and Jones, *H. A.*, collisions between electrons and gas molecules, *A.*, 453.
- Langmuir, *I.*, and Langmuir, *D. B.*, effect of unimolecular films on the evaporation of other solutions, *A.*, 13.
- Langmuir, *I.* See also Kingdon, *K. H.*
- Lanham, *W. B.*, effect of potash fertiliser on the carrying quality of tomatoes, *B.*, 102.
- Lanigan, *J. A.*, smelting furnace, (*P.*), *B.*, 788.
- Lanin, *V. A.* See Klimov, *B. K.*
- Lansing, *W. D.*, electronic theory of passivity, *A.*, 1303.
- Lantz, *E. A.* See Ryan, *R. W.*
- Lantz, *L. A.* See Calico Printers' Association, Ltd.
- Lantz, *R.*, and Wahl, *A.*, action of primary amines on nitroso- β -naphthol, *A.*, 131.
- Lantz, *R.*, Wahl, *A.*, and Société Anonyme des Matières Colorantes & Produits Chimiques de St.-Denis, manufacture of derivatives of naphthaquinones, (*P.*), *B.*, 362*.
- Lantz, *R.* See also Wahl, *A.*
- Lanyi, *L.* See Hadnagy, *Z.*
- Lanz Akt.-Ges., *H.* See Sipp, *K.*
- Lanzendorfer, *G.*, and Martin Adhesive Co., production of glue from casein, (*P.*), *B.*, 278.
- Lanzing, (*Miss*) *J. C.*, ternary system ammonium chloride, ammonium succinate, and water, *A.*, 1329.
- Lapayre, *L.* See Grignard, *V.*
- Lapierre, *L.*, treatment of hemp and other vegetable fibres, (*P.*), *B.*, 187.
- Lapinsky, *P.*, theory of the electrical conductivity of metals, *A.*, 1083.
- Laporte, *M.*, mobility of ions in gases, *A.*, 102.
- measurement of mobilities of ions in gases, *A.*, 214.
- Laporte, *O.*, interpretation of the paramagnetism of the iron group, *A.*, 576.
- spectrum of ionised sodium, *A.*, 680.
- arc spectrum of chlorine, *A.*, 805.
- Laporte, *O.* See also Mack, *J. E.*, and Sommerfeld, *A.*
- Laporte, Ltd., *B.*, Alcock, *H. E.*, and Weber, *I. E.*, white [titanium] pigment, (*P.*), *B.*, 100.
- Laporte, Ltd., *B.* See also Weber, *I. E.*
- Lapp, (*Mme.*) *C.*, measurement of the true specific heats of nickel by a direct electrical method, *A.*, 577.
- Lapworth, *A.*, and Baker, *W.*, [preparation of] α -cyano- β -phenylacrylic acid, *A.*, 413.
- [preparation of] phenylsuccinic acid, *A.*, 638.
- Lapworth, *A.*, and Manske, *R. H. F.*, conditions determining thermodynamic stability of cyanohydrins of carbonyl compounds. I. Effects of (a) substitution in aromatic aldehydes and (b) ring formation, *A.*, 1245.
- Lapworth, *A.*, and Mottram, *E. N.*, stereochemical inversions and cross-saturation processes, *A.*, 221.
- Laqueur, *E.*, Borchard, *E.*, Dingemanse, *E.*, and De Jongh, *S. E.*, female sexual hormone (menoformone). IX. Action on the mammary gland, *A.*, 1405.
- Laqueur, *E.*, Hart, *P. C.*, and De Jongh, *S. E.*, female sexual hormone (menoformone). IV. Influence on metabolism and resistance, *A.*, 554.
- preparation and properties of a female sexual hormone (menoformone) in water-soluble form, *A.*, 554.

- Larison, *E. L.*, modified circulation system improves operation of chamber [sulphuric acid] plant, *B.*, 445.
- Larison, *E. L.*, and Anaconda Copper Mining Co., concentration of phosphoric acid by evaporation, (P.), 13.
- Larmour, *R. K.*, glutelins of the cereal grains, *B.*, 383.
- Larmour, *R. K.* See also Thorvaldson, *T.*
- Larocia, *B. D.* See Farmer, *E. H.*
- La Rosa, *W.*, rapid preparation of crystalline egg-albumin, *A.*, 439.
- Larsen, *B. M.* See Krivibok, *V. N.*
- Larsen, *E. S.*, and Steiger, *G.*, dehydration and optical studies of alunogen, nontronite, and griffithite, *A.*, 149.
- Larson, *A. T.*, and Lazote, Inc., ammonia synthesis process and catalyst, (P.), *B.*, 446.
- Larson, *H. W. E.*, relation of concentration of calcium ion required by lucerne to amount present in soil solution, *B.*, 534.
- Larsson, *E.*, ionic distribution coefficients, *A.*, 118.
- Larsson, *E.*, electrolytic dissociation of dibasic acids. IV. Dissociation constants of some thiolmonocarboxylic acids, *A.*, 840.
- Larsson, *E.*, electrolytic reduction of dithiodiacetic acid, *A.*, 1117.
- Larsson, *M.*, and Phosphorus Hydrogen Co., regeneration or reactivation of catalysts, (P.), *B.*, 447.
- Larsson, *M.* See also Liljenroth, *F. G.*
- Lasaussé, *E.*, influence of method of preparation on chemical composition of preserved peas, *B.*, 105.
- Lasaussé, *E.*, destruction of essence of mustard in its preparations, *B.*, 171.
- Lascaray, *L.*, saponification of fats in heterogeneous systems, *A.*, 716.
- Lasch, *G.*, and Reitstötter, *J.*, physico-chemical characteristics of normal and pathologically altered blood-serum, *A.*, 192.
- Lasch, *G.*, electro-dialysis or electro-osmosis, *A.*, 1408.
- Laschtschenko, *P. N.*, and Kompanski, *D. J.*, relationship between the different forms of calcium sulphate at high temperatures, *A.*, 955.
- Lasier, *E. L.* See Reed, *A. C.*
- Laska, *A. L.* See I. G. Farbenind. A.-G.
- Laski, *G.*, infra-red reflexion spectra of sodium chlorate and sodium bromate, *A.*, 687.
- Laskin, *E.*, coagulation of colloids by electrolytes. V. Pure silicic acid sols, *A.*, 839.
- Laskin, *E.* See also Rabinovitch, *A. J.*
- Laskin, *J.*, velocity of thermal decomposition of malonic acid, *A.*, 961.
- Lasnitzki, *A.* See Rosenthal, *O.*
- La Soie d'Aubenton. See Soie d'Aubenton.
- Lastra, *T. de V.* See Sayago, *G.*
- Lather, *H.*, influence of nitrogenous fertilisers on the structure of soils, *B.*, 937.
- Lathrop, *E. C.* See Sadtler, *S. S.*
- Lathrop, *H.* See Read, *R. R.*
- Latimer, *W. M.*, and Greensfelder, *B. S.*, heat capacity and entropy of caesium alum from 18° to 300° Abs.; entropy of aluminium ion; potential of the aluminium electrode from thermal data, *A.*, 1096.
- Latour, *M.*, and Latour Corporation, electric coil construction, (P.), *B.*, 934.
- Latour Corporation. See Latour, *M.*
- Latrobe Electric Steel Co. See Giles, *D. J.*
- Latshaw, *W. L.*, and Zahnley, *J. W.*, sodium chlorate and other chemicals as herbicides for field bindweed, *B.*, 102.
- Lattey, *R. T.*, dilution law for strong electrolytes, *A.*, 128.
- Lattey, *R. T.*, influence of the solvent on the mobility of electrolytic ions, *A.*, 1082.
- Latzke, *P.* See Contardi, *A.*
- Latzke, *E.* See Kramer, *M. M.*
- Lau, *E. H.*, H_{α} emission in the positive column, *A.*, 811.
- Laubengayer, *A. W.* See Dennis, *L. M.*
- Laucks, *I. F.* See Laucks, Inc., *I. F.*
- Laucks, Inc., *I. F.*, preparation of protein colloids [adhesives, size, etc.], (P.), *B.*, 905.
- Laucks, Inc., *I. F.*, Davidson, *G.*, Rippey, *H. F.*, Cone, *C. N.*, Laucks, *I. F.*, and Banks, *H. P.*, manufacture of a cellulose fibre product, (P.), *B.*, 600*.
- Laucks, Inc., *I. F.* See also Johnson, *O.*
- Laudat, determination of sodium in biology, *A.*, 1164.
- Lauter, *G.*, applicability of Trénel's "acidimeter," *B.*, 27.
- Laufer, *L.* See Bermann.
- Laughlin, *W. C.*, and Laughlin Filter Corporation, centrifugal machine, (P.), *B.*, 175.
- Laughlin, *W. C.* See also Laughlin Filter Corporation.
- Laughlin Filter Corporation, centrifugal machines, (P.), *B.*, 772.
- Laughlin Filter Corporation, and Laughlin, *W. C.*, centrifugal separators, (P.), *B.*, 320.
- Laughlin Filter Corporation. See also Laughlin, *W. C.*
- Laurert, *A.*, action of mixtures of salts on copper, *A.*, 971.
- Laur, *A.* See Kolthoff, *I. M.*
- Laurence, *G. C.*, determination of the range of the α -particles of uranium. I. and II., *A.*, 4, 684.
- Laurent, (*Mlle.*) *Y.* See Rathery, *F.*
- Laurentide Co., Ltd. See Keay, *H. O.*
- Lauriac, *J. E.* See All'gre, *C.*
- Laurie, *A. P.*, production of slabs for walls, partition walls, etc., (P.), *B.*, 485.
- Laurie, *L. G.* See British Dyestuffs Corporation, Ltd.
- Laury, *N. A.*, precipitation of zinc carbonate, (P.), *B.*, 262*.
- Lautenschläger, *L.* See I. G. Farbenind. A.-G.
- Lauter, *F.*, and Rohm & Haas Co., resinous reaction product of urea [carbamide] and formaldehyde, (P.), *B.*, 614, 648.
- Lauter, *F.* See also Rohm & Haas Co.
- Lauter, *S.*, relation of protein to mineral metabolism, *A.*, 324.
- Lauth, *H.* See Bauer, *K. H.*
- Lautsch, *W.*, dielectric constants and dispersion of some organic compounds and shattering of light by the molecules, *A.*, 1309.
- Lauwaet, *A.* See Stainier, *C.*
- Lavender, *P. C.*, and Sherman, *A. E.*, preservation of [carcasses for] food, (P.), *B.*, 464.
- Lavett, *C. O.*, and Buffalo Foundry & Machine Co., apparatus for spraying and treating liquids, (P.), *B.*, 507.
- Lavine, *I.*, and Sutherland, *R. L.*, revised psychrometric chart assists high-temperature design [of dryers], *B.*, 429.
- Lavoisier, *I. J.*, and Burdick Corporation, electric arc lamp, (P.), *B.*, 791.
- Lavrov, *B. A.*, and Matzko, *S. N.*, nitrogenous metabolism during unbalanced nutrition. II. Nitrogenous metabolism in hens during avitaminosis-*B.*, *A.*, 1161.
- Lavrovski, *K. P.* See Gavrilov, *N.*, and Zelinski, *N. D.*
- Lawes, *J. H.*, method and alloy for galvanising metal articles, (P.), *B.*, 452.
- Lawler, *B. M.* See Mudge, *C. S.*
- Lawrence, *C. D.* See Farmer, *E. H.*
- Lawrence, *E. C.*, and Beams, *J. W.*, element of time in the photo-electric effect, *A.*, 1168.
- Lawrence, *H. Le V.*, and Kenilworth Manufacturing Co., Ltd., manufacture of splinterless, reinforced glass, (P.), *B.*, 672.
- Lawrence, *H. M.* See Wheeler, *E. S.*
- Lawrence, *H. S.* See United Water Softners, Ltd.
- Lawrence, *R. D.*, relationship between body-temperature and blood-sugar in rabbits, *A.*, 663.
- Lawrence Leather Co., *A. C.*, Kelley, *C. P.*, and White, *E. W.*, coloured leather, (P.), *B.*, 420.
- Lawrie, *J. W.*, and Du Pont de Nemours & Co., *E. I.*, production of glycerol by fermentation, (P.), *B.*, 726.
- Lawrie, *L. G.*, microscopical investigation of artificial silk fibres, *B.*, 294.
- Lawrie, *L. G.* See also Horsfall, *R. S.*
- Lawson, *W. E.*, and Dawson, *T. P.*, chlorination of $\beta\beta$ -dichloro-diethyl sulphide. I. and II., *A.*, 153.
- Lawton, *G. O.*, Dowthwaite, *S.*, and Albion Clay Co., Ltd., drying of sanitary pipes and other clay goods, (P.), *B.*, 448.
- Laxa, *O.*, ash of human milk, *A.*, 542.
- Laxa, *O.*, composition of the fat of mare's milk, *B.*, 33.
- Laxa, *O.*, relation between constants of butter fat, *B.*, 374.
- Laxa, *O.*, nature of the microscopic grains in cheese, *B.*, 622.
- Layng, *T. E.*, and Soukup, *R.*, partial oxidation of methane and ethane in the presence of catalysts, *B.*, 920.
- Layng, *T. E.*, and Youker, *M. A.*, action of accelerators and inhibitors upon the oxidation of liquid hydrocarbons, *B.*, 882.
- Layng, *T. E.* See also Coffman, *A. W.*, and Urbana Coke Corporation.
- Lázár, *Z.* See Kofler, *L.*
- Lazarus, *W.*, prevention of boiler incrustation, (P.), *B.*, 732, 770, 944.
- Lazier, *E. L.* See Miller, *R. C.*
- Lazote, Inc., and Williams, *Roger*, effecting [purifying hydrogen by] catalytic reactions for the production of ammonia, (P.), *B.*, 230.
- Lazote, Inc. See also Claude, *G.*, Larson, *A. T.*, and Williams, *Roger*.
- Lazzell, *C. L.*, and Johnston, *J.*, solubility relations of isomeric organic compounds. VIII. Solubility of the aminobenzoic acids in various liquids, *A.*, 1182.

- Lea, C. H. See Hilditch, T. P.
- Lea, F. M., and Brady, F. L., slag, coke breeze, and clinker as aggregates, B., 92.
- Lea, H. I. See Humphrey, C. W.
- Leach, R. H., melting sterling silver in high-frequency induction furnaces, B., 449.
- Leahy, R. A., screening apparatus, (P.), B., 144.
- Leao, F. G. P., extraction of cellulose from vegetable products, (P.), B., 706.
- Learner, A. See Haworth, W. N.
- Leas, R. D., reducing substances in urine, A., 666.
- Lease, G. See Levine, M.
- Leask, H. L., paint-removing composition, (P.), B., 164.
- Léauté, A., agglomeration of coals by means of hydrocarbons partially dehydrogenated by sulphur, B., 660.
- Léauté, A., and Dupont, G., partial dchydrogenation process for certain hydrocarbons which favours the binding of the carbon, B., 510.
- Leavenworth, C. S. See Vickery, H. B.
- Leaver, J. M., and Pacific Lumber Co., manufacture of viscose, (P.), B., 295.
- Lebdska, J. See Nicolas, E.
- Lebeau, P. M. A., and Damiens, A. A. L. J., [preparation of] fluorine, (P.), B., 91.
- Lebedev, A., action of yeast oxidoreductase on some probable intermediate products of alcoholic fermentation and on crotonaldehyde, A., 551.
- cell-free fermentation, A., 673.
- alleged co-enzyme for oxidoreductase of yeast, A., 673.
- mechanism of alcoholic fermentation, A., 1402.
- Lebedev, A. F., volume weight of soils as a physical characteristic of the soil profile, B., 538.
- Lebedev, S. V., and Vinogradov-Volzynski, I. A., polymerisation. XI. Polymerisation and depolymerisation of amylenes under the influence of silicates, A., 732.
- Lebedev, S. V., and Yakubchik, A. O., catalytic hydrogenation of unsaturated compounds. II. and III. Hydrogenation of conjugated systems, A., 613, 1111.
- catalytic hydrogenation of unsaturated compounds. III., A., 968.
- Lebedinski, V. V., complex compounds of tervalent iridium, A., 35.
- separation of rhodium from iridium by potassium iodide, A., 728.
- Lebedinski, V. V., and Chlopin, V., preparation of platinum, A., 35.
- Lebedinski, V. V. See also Grigoriev, A. T., and Shemtschushni, S. F.
- Le Bihan, H. See Cornubert, R.
- Le Blanc, M., and Kröger, M., thermal and calorimetric magnitudes of caoutchouc and of similar substances, B., 494.
- Le Blanc, M., Naumann, M., and Tschesno, D., tin-bismuth and tin-cadmium alloys in the solid state; assumption of stable equilibria at various temperatures, A., 710.
- Le Blanc, M., Richter, K., and Schiebold, E., investigation of Tammann's theory of "resistance limits" for the gold-copper system, A., 1082.
- Le Blanc, M., and Sachse, H., black nickel oxide, A., 142.
- Le Boucher, L., desiccation and the density of magnesium nitrate, A., 1311.
- Leboucq, J., formation of cyanate in the determination of alkali cyanides with copper sulphate, A., 277.
- Leboucq, J. See also Bougault, J.
- Lebrun, necessity for the evaluation of mustard flour, B., 171.
- Lecat, M., azeotropism in binary systems containing an amide, A., 117.
- binary azeotropes. VIII., IX., X., and XI., A., 117, 229, 943.
- azeotropy in binary alcohol-ester mixtures, A., 943.
- azeotropy in the binary systems alcohols-hydrocarbons, A., 943.
- Lecher, H., Rathke's guanidine synthesis and hydrolysis of guanidines, A., 1123.
- Lechler, P. See Hutzenlaub, E.
- Lechler, R., jun. See Rapp.
- Lecloux, J., cadmiophile cells of the lung, A., 1393.
- Lecoq, M. C. H. O., tunnel dryer, (P.), B., 772.
- Lecoq, R., analysis of dietary products, especially gluten and almond breads, B., 545.
- Lecoq, R. See also Randoim, (Mlle.) L.
- Lécorché, and Jovinet, products formed during storage of SD powder, B., 656.
- Lecoulter, G., and Borels, E., production of reducing gases, (P.), B., 884.
- Lecus, H. See Fetkenheuer, B.
- Leder, W., behaviour and economics of gas-works and coko-oven cokes when used for firing a central-heating boiler, B., 4.
- Lederer, A., production of carbon, (P.) B., 804.
- Lederer, E. A., and Westinghouse Lamp Co., production of refractory metals, (P.), B., 270.
- Lederer, E. L., complete solutions of Fourier's partial differential equation for given surface conditions, and application to colloid-chemical problems, A., 235.
- Lederer, H., radium and thorium content of volcanic rocks of the Hegau, A., 612.
- Lederer, O., Stanczak, W., and Kassler, H., production of metal hydroxides free from iron, by means of basic substances, from metal salt solutions containing iron, (P.), B., 90.
- Lederer, R., production of gas, (P.), B., 396.
- Ledru, M. J. L., Bachmann, E. J., and Société Chimique de Usines du Rhône, preparation of ethylidene diacetate, (P.), B., 516*.
- Lee, A. R. See Bengough, G. D.
- Lee, G. van der, importance of particle size in manufacture of flour and baking, B., 171.
- viscosity of flour suspensions, B., 282.
- Lee, H. A., and Martin, J. P., development of more effective dust fungicides by adding oxidising agents to sulphur, B., 102.
- more effective dust fungicides by the use of oxidising agents with sulphur, B., 169.
- effect of fertiliser constituents on the eye-spot disease of sugar-cane, B., 239.
- Lee, H. C. See McDowell, S. J.
- Lee, H. R. See Gubelmann, J.
- Lee, J. van der, action of nitric acid on derivatives of ethylene. II. Nitration of styrene derivatives, A., 1375.
- Lee, K. O. See Gale, H. G.
- Lee, O., magnetic concentration of iron ores of Alabama; flotation of limestone from siliceous gangue, B., 369.
- Lee, O., Gandrud, B. W., and De Vaney, F. D., magnetic concentration of iron ores of Alabama; high-silica red ores; high-silica grey hematite of Talladega county; flue dust of the Birmingham district, B., 369.
- Lee, R. F. See Dunlop Rubber Co., Ltd.
- Lee, W. B., periodic anomalies in the properties of long-chain compounds, A., 107.
- Lee, W. B. See also McBain, J. W.
- Leech, W. S., and Sherman, A. E., [spraying device for] treatment of air for preservation of foods, etc., (P.), B., 729.
- Leeds & Northrup Co. See Smith, I. B.
- Leek, A. E., heat interchangers, (P.), 39, 353.
- Leek, A. E., and Wigan Coal & Iron Co., Ltd., separation of solid and liquid materials [washing of coal, etc.], (P.), B., 114.
- Leek, A. E. See also Wigan Coal & Iron Co., Ltd.
- Leemann, H., Tagliani, G., and Munitex Corporation, reserve dyeing on vegetable fibres, (P.), B., 122, 856*.
- Leemans, E. T., neutralisation of naphtha-yielding oils and a new dry-refining process, B., 434.
- Leersum, E. C. van, vitamin-A deficiency and urolithiasis, A., 332.
- vitamin-A deficiency and calcification of the renal epithelium, A., 1405.
- Lefebvre, V., manufacture of tiles, (P.), B., 15*.
- Lefebvre, H. See Jolibois, P.
- Lefèvre, J. See Lobel, L.
- Le Fevre, E., commercial production of sauerkraut, B., 690.
- Le Fevre, R. J. W., and Turner, E. E., orientation effects in the diphenyl series. V. Independence of the two nuclei in diphenyl compounds, A., 283.
- orientation effects in the diphenyl series. VI. Supposed isomerism of the dinitrotoluidines, A., 630.
- Leffmann, H., and Strock, L. W., sodium alum, A., 1199.
- Leffmann, H., and Trumper, M., Reinsch's test, A., 384.
- Lefort des Ylouses, G., purification of hydrogen [for use in the manufacture of ammonia], B., 891.
- Lefranc, J., and Société des Brevets Étrangers Lefranc & Cie, extraction of butyric acid and its homologues, (P.), B., 781*.
- Lefranc, L., manufacture of ketones, (P.), B., 152*.
- Legeler, E. See I. G. Farbenind. A.-G.
- Legendre, H., application of p_n theory to the conservation of grain and cereal by-products, B., 33.
- Legendre, R. A., colorimeters and analogous instruments, (P.), B., 659.

- Léger, E., titration of ipecacuanha extract, B., 172.
- Legerlotz, H., hydroxy- ω -aminoacetophenone derivatives [hydroxyphenacylamines and their ethers], (P.), B., 837, 875*.
- Legg, D. A., and Commercial Solvents Corporation, butyl [alcohol]-acetone fermentation, (P.), B., 462*.
- Legg, D. A. See also Commercial Solvents Corporation.
- Legg, V. E., and Bell Telephone Laboratories, Inc., magnetic [dust] core; insulation of magnetic material, (P.), B., 59.
- Leggemann, A., disintegrating mill, (P.), B., 2.
- Le Grand, A., and Bierend, G., hyperglycæmia in dogs after intravenous injection of pilocarpine nitrate, A., 920.
- Le Guyon, R. F., microtitration of sulphate ions and of barium ions by a centrifugal method, A., 36.
- Le Guyon, R. F., and Auriole, R. F., microtitration of lead cations and of chromic anions by centrifugo-volumetry, A., 860.
- Lehmann, B. See Rippel, A.
- Lehmann, F., constitution and [physiological] action; aromatic fluorine compounds, A., 670.
- Lehmann, G. See Gall, H., and Manchot, W.
- Lehmann, J., blood-sugar after vagus irritation, A., 315.
- Lehmann, J. F. See Gordon, R.
- Lehmann, K. B., and Herget, L., hygienic properties of titanium dioxide and "titanium white," B., 100.
- Lehmann, P., and Reuss, A., colorimetric determination of iron in water, B., 390.
- Lehmann, W. H. See Spangenberg, K.
- Lehmstedt, K., [nitro- and amino-acridines], A., 73.
- Lehmstedt, K., and Wirth, E., *ms*-acridine derivatives, A., 1259.
- Lehnartz, E. See Embden, G.
- Lehnhoff-Wyld, F., metal salts of *N*-methylenesulphonic acids of diaminodihydroxyarsenobenzene, (P.), B., 548*.
- Lehnhoff-Wyld, F., manufacture of metal salts of sulphoarsenol, (P.), B., 800*.
- Lehr, C. E. See Cort, S. J.
- Lehr, F., absence of free aldehyde groups from enzyme solutions, A., 1156.
- Lehrer, G. A. See Biltz, W.
- Lehrman, A., modified thermo-regulator, A., 502.
- Lehrman, A., solid solutions and compound formation, A., 843.
- Lehr-Splawinska, Z. See Jacek, W.
- Leibovitz, J., comparison of the fermentability of the zymohexoses; glycogen and starch, A., 673.
- Leibovitz, J. See also Neuberg, C.
- Leigh-Clare, J. C. See Soames, K. M.
- Leighton, A., and Williams, O. E., effect of temperature on the basic viscosity of ice-cream mixes, B., 33.
- Leighton, P. A. See Lange, E.
- Leimbach, G., determination of halogens by Volhard's method, A., 36.
- Leimbach, G., determination of iodates in the presence of iodides, nitrites, and chlorides, A., 36.
- Leimu, R. See Palomaa, M. H.
- Leimbach, L. R. See Veitch, F. P.
- Leinzinger, M. von, and Kelemen, J. von, pharmacological assay of ergot. II., A., 444.
- Leinzinger, M. von. See also Issekutz, B. V. von.
- Leipunski, A. See Kondratiev, V.
- Leiss, C., spectrometer or monochromator with lenses or mirrors for use with one or two prisms of glass, quartz, rock salt, etc., A., 449.
- Leiss, C., direct-vision spectroscopic apparatus and monochromator with two prisms and constant deviation, A., 449.
- Leiss, P. E., water softening, (P.), B., 944.
- Leitch, G. C. See Clemo, G. R.
- Leitch & Co., Ltd., J. W., Everest, A. E., and Wallwork, J. A., dyeing of animal fibres, in particular silk, by means of ice-colours, (P.), B., 229.
- Leitch & Co., Ltd., J. W., Everest, A. E., and Wallwork, J. A., dyeing of wool or silk by means of ice-colours, (P.), B., 229.
- Leites, S., fat and lipin metabolism. VI. Rôle of the lungs in fat and lipin metabolism, A., 198.
- Leites, S., cholesterol and lipid phosphorus of bile; variations during feeding with various materials after "blockade" of the reticulo-endothelial system and after splenectomy, A., 541.
- Leites, S., fat metabolism after splenectomy, A., 1154.
- Leites, S., fat and lipin metabolism. VIII. Degradation of fat in the animal organism, A., 1154.
- Leithe, W., natural rotation of polarised light by optically active bases. I. Influence of solvent on the rotation of *d*- α -pipecoline and its hydrochloride, A., 1022.
- Leithe, W. See also Späth, E.
- Leitmeier, H. See Feigl, F.
- Lejeune, A., determination of aluminium as phosphate, A., 500.
- Lejeune, G. See Audubert, R., and Marie, C.
- Leigemann, W. See Hesslé, E. T.
- Lellep, O., and International Nickel Co., fuel-heated furnace and converter [for nickel matte] using preheated air, (P.), B., 789.
- Lemarchands, M., quantitative separation of barium and calcium, A., 1205.
- Lematte, L., Boinot, G., and Kahane, E., inorganic composition of human and animal tissues, A., 787.
- Lemberg, R., chromoproteins of red algæ. I., A., 533.
- Lemberg, R. See also Biltz, H.
- Lemmermann, O., and Gerdum, E., manufacture of artificial "farmyard manure," B., 28.
- Lemmermann, O., and Hasse, P., theory of growth of factors [of soils], B., 764.
- Lemmermann, O., Hasse, P., and Jessen, W., relation between plant nutrition, plant growth, and the Mitscherlich method for determining the fertiliser requirement of soils, B., 310.
- Lemoigne, formation of an *o*-diphenol at the expense of sugars by certain microbes of the soil, A., 447.
- Lempert, C. See Duparc, L.
- Lenard, P., electrical conductivity in flames, A., 568.
- Lendle, L., rate of narcotic action of homologous and isomeric monohydric alcohols, A., 547.
- Lendle, L., pharmacology of narcosis; "narcotic range," A., 920.
- Lengold, V. A. See Tschitschibabin, A. F.
- Lengyel, B. von. See Abel, E.
- Lenher, S., and Daniels, F., intensive drying of liquids, A., 1189.
- Lenher, S., and Schumacher, H. J., carbonyl bromide. I. Thermal decomposition, A., 847.
- Lenher, S. See also Schumacher, H. J.
- Lenher, V., and Fruehan, A. G., seleno-compounds of tungsten, A., 142.
- Lennard-Jones, J. E., and Bent, (Miss) B. M., cohesion at a crystal surface, A., 8.
- Lennard-Jones, J. E., and Woods, H. J., distribution of electrons in a metal, A., 1299.
- Lennartz, A., preventing the diffusion of carbon into iron during cementation, (P.), B., 57.
- Lennartz, A., case-hardening [of iron], (P.), B., 489*.
- Lennings, W., mechanism of the blast furnace, with especial reference to the combustion relations in the tuyère zone, B., 750.
- Lennon, J. J., and Perkin, W. H., jun., action of dibromotetracarboxylic esters on sodium derivatives of ethyl malonate, ethyl ethanetetra-carboxylate, and analogous substances, A., 886.
- Lent, H., and Kofler, F., ageing of thermocouple wires, B., 897.
- Leo, A., chronic methyl alcohol poisoning, A., 200.
- Leo, A., preparation of a soluble gum composition, (P.), B., 243.
- Leo, A., manufacture of a food composition [from albumin and sugar], (P.), B., 284.
- Leo, H. T., extraction of pectin from fruit, (P.), B., 209.
- Leo, H. T., manufacture of powdered or granular jellyifying compound, (P.), B., 209.
- Leo, M. See Wittig, G.
- Léon, A. See Ranedo, J.
- Leonard, C. M. See Gomory, W. L.
- Leonard, G. F., and Heacock, E., comparative results from the testing of various germicidal agents, B., 350.
- Leonard, R. J., hydrothermal alteration of certain silicate minerals, A., 1210.
- Leonard, V., treatment of the higher phenols for germicidal purposes, (P.), B., 944.
- Leone, P., Friedel and Crafts' reaction and the organometallic compounds of aluminium, A., 1387.
- Leone, P., and Noera, A., wood-sugar problem. I. Saccharification of the cellulose, B., 619.
- Leonhardt, J., morphological and structural relationships of meteoric iron in relation to its evolution, A., 821.
- Leonhardt, R. See Nolte, O.
- Leonhardt, W. See Scholl, R.
- Leonov, P. P. See Rutovski, B. N.
- Leontovitch, M., theory of extinguishing collisions between dissolved molecules in viscous liquids, A., 1072.
- Leopold, F. See Frers, J. N.
- Leopold, H., apparatus for micro-analytical determination of [ammoniacal] nitrogen, A., 608.
- Leopold, H., carbonyl numbers of some humic acids, B., 734.

- Leopold, *H. G.*, and Johnston, *J.*, rate of absorption of water by bakelite, A., 701.
- Leopold, *R.* See I. G. Farbenind. A.-G.
- Lepape, *A.*, separation of krypton and xenon from atmospheric air, A., 970.
- Lepetit, *R.*, Maffei, *G.*, and Maimeri, *C.*, bases obtained from *p*-phenetidine and from *p*-toluidine with formaldehyde in acid solution, A., 284.
- Lepine, *P.* See Levaditi, *C.*
- Lepski, *E. M.* See Brehme, *T.*
- Lerberghe, *G. van*, calculation of the fugacities of a solution, A., 1096.
- Lersch, *W.*, and Bogue, *R. H.*, hydrolysis of compounds which may occur in Portland cement, A., 21.
- Leroudier, *H.*, manufacture of oleomargarine, (P.), B., 347*.
- Le Roux, *P.*, pleochroism of tourmaline, A., 934.
- Leroy, (*Mlle.*) *B.* See Bougault, *J.*
- Leroy, *D.*, and Taillandier, *M.*, nephelometric determinations and micro-determinations using the Vernes-Bricq-Yvon photometer, A., 563.
- Le Roy, *P. M.*, absorption refrigerating apparatus, (P.), B., 467.
- Lerrigo, *A. F.*, use of strips of mercuric chloride paper in the Gutzeit test, A., 263.
- glycerin in cream, B., 585.
- water in cream, B., 798.
- Leschenko, *N.*, uranium minerals from Lotsmanskaja near Ekaterinoslav and from Khutor Golowin near Shitomit and their radioactivity, A., 150.
- Lescœur, *L.*, apparatus for micro-determination of carbon dioxide, A., 979.
- Lescœur, *L.*, and Manjean, (*Mlle.*) *S.*, volumetric determination of carbon dioxide, A., 724.
- Lescœur, *L.*, and Turobinski, *T.*, application of Desgrez's apparatus for the determination of total carbon to alkalimetric micro-analysis, A., 724.
- Leseurre, *A.*, [steam] sterilising process, (P.), B., 914.
- Lesley, *B. E.* See Kaloyereas, *S.*
- Leslie, *E. H.*, and Baker, *E. M.*, treatment and fractionation of cracking-plant vapours, (P.), B., 842.
- Leslie, *R. T.* See Phipps, *T. E.*
- Lespieau, *R.*, action of chloroacetaldehyde on the mixed di-magnesium derivative of acetylene; acetylenic glycol and erythritol, A., 396.
- acetylenic glycerols containing a straight chain of five carbon atoms, A., 989.
- dodecane-*am*-diol, A., 1213.
- Lesser, *E. J.*, acceleration of sugar formation in the excised frog's liver by destruction of its structure, A., 201.
- genesis of diabetic hyperglycæmin, A., 1153.
- Lessing, *R.*, treatment of carbonaceous materials, (P.), B., 179.
- separation of powdered or granular material, especially coal, (P.), B., 356.
- treatment of materials with binders and briquetting said material, (P.), B., 356.
- clean coal in the coking industry, B., 432.
- heat-treatment of briquettes, (P.), B., 469.
- composition of fuel briquettes, (P.), B., 513.
- Lesslie, *M. S.* See McKenzie, *A.*
- Lesure, *A.*, and Dunez, *A.*, determination of sulphur in blood and organic products, A., 1270.
- Lesure, *A.* See also Loeper, *M.*
- Le Thomas, *A.*, heredity of [iron] castings, B., 94.
- Leu, *A.*, magnetic resolution of bismuth vapour streams, A., 937.
- Leu, *C.*, elimination and determination of nitrogen in argon, A., 1204.
- Leuchs, *H.* [with Köhler, *H.*, and Grunow, *G.*], ring closure of γ -phenyl- α -benzyl-*n*-butyryl chloride, A., 287.
- Leuchs, *H.* [with Philpott, *O.*, Sander, *P.*, Heller, *A.*, and Köhler, *H.*], new transformations of indolenines [indeno- ψ -indolines] and indolinols [dihydroindenoindolines], A., 528.
- Leuchs, *H.* [with Waldorf, *I.*, Sander, *P.*, and Leuchs, *W. R.*], action of diazomethane on ethyl phloroglucinoldicarboxylate and its derivatives; its reaction with nitrous acid, A., 1029.
- Leuchs, *W. R.* See Leuchs, *H.*
- Leuchte Nacht, *G.* See Tauber, *C.*
- Leuchtenberg, *W. E.* See Raffloer, *E.*
- Leuck, *G. J.*, and Cejka, *L.*, [preparation of] furfurylideneacetone, A., 426.
- Leulier, *A.*, and Dinot, *J.*, bromination of *p*-aminobenzoic acid and its ethyl and butyl esters, A., 1004.
- Leulier, *A.*, and Gojon, *P.*, adrenaline content of the suprarenals of various mammals, A., 319.
- Leulier, *A.*, Sédallian, *P.*, and Gaumont, *J.*, diphtheria toxin, A., 1286.
- Leulier, *A.*, Velluz, *L.*, and Griffon, *H.*, micro-determination of potassium as cobaltinitrite, A., 1205.
- Leutert, *F.* See Hieber, *W.*
- Leuthardt, *F.*, theory of the hydrogen electrode, A., 23.
- Leuthardt, *F.* See also Jung, *A.*
- Leuze, *A.* See Busch, *M.*
- Levaditi, *C.*, preparation of bismuth nucleinate, (P.), B., 624.
- manufacture of an organic bismuth-arsenic compound, (P.), B., 874.
- finely-divided tellurium, (P.), B., 894.
- Levaditi, *C.*, Bayarri, *V. S.*, Schoen, *R.*, and Manin, *V.*, preventive action of metals against syphilis, A., 444.
- Levaditi, *C.*, Lepine, *P.*, and Schoen, *R.*, spirochæticidal properties of elemental vanadium; astrogenesis around vanadium particles, A., 1160.
- Levaillant, *R.*, preparation of normal sulphuric esters, A., 990, 1364.
- Levalt-Ezerski, *M.*, saturated vapour pressure and latent heat of vaporisation of liquids, A., 1083.
- Levene, *P. A.*, concentration of vitamin-B. IV. Concentration and separation of the two components of vitamin-B, A., 1405.
- Levene, *P. A.*, and Bass, *L. W.*, racemisation. VII. Action of alkali on casein, A., 1043.
- Levene, *P. A.*, and Blanco, *J. G.*, dihydroxyacetone and insulin hypoglycæmia, A., 1404.
- Levene, *P. A.*, and Haller, *H. L.*, configurational relationships of β -hydroxyvaleric and lactic acids, and of methylethyl- and ethyl-*n*-propyl-carbinols, A., 394.
- configurational relationships of α -hydroxyvaleric and lactic acids, A., 737.
- configurational relationships of hexan- β -ol and of α -hydroxy-*n*-hexoic acid to lactic acid; relationship of chemical structure to optical activity, A., 1353.
- Levene, *P. A.*, and Landsteiner, *K.*, lipoids, A., 83.
- Levene, *P. A.*, and Meyer, *G. M.*, pentabenzoates of dextrose, A., 398.
- structure of tetramethyl- γ -methylmannoside, A., 510.
- α - and β -forms of diacetone methylmannoside [methylmannoside diisopropylidene ether], A., 992.
- Levene, *P. A.*, and Mikeska, *L. A.*, Walden inversion. XI. Oxidation of secondary mercaptans to sulphonic acids; Walden inversion in series of secondary carbinols, A., 170.
- Levene, *P. A.*, and Mori, *T.*, Walden inversion. XII. Oxidation of β -thiolvaleric and γ -thiolvaleric acids, A., 869.
- Levene, *P. A.*, and Steiger, *R. E.*, action of acetic anhydride and acetone in presence of pyridine on tyrosine and on phenylglycine, A., 61.
- racemisation. VI. Action of alkali on peptides and on diketopiperazines, A., 304.
- action of acetic anhydride and pyridine on amino-acids, A., 1228.
- Levene, *P. A.*, and Walti, *A.*, polymerisation and condensation. II. Products of interaction of potassium acetate and epichlorohydrin, A., 734.
- polymerisation and condensation. III. Acetocondensation of dihydroxyacetone, A., 870.
- polymerisation and condensation. IV. Glycidol acetate, A., 1354.
- Levene, *P. A.*, and Wolfrom, *M. L.*, lactone formation of cellobionic and glucoarabonic acids, and its bearing on the structure of cellobiose, A., 739.
- acetylmonoses. IV. Two isomeric triacetylmethyl-lyxosides, A., 991.
- acetylmonoses. V. Rates of hydrolysis of tetra-acetylmethylmannosides and of triacetylmethyl-lyxosides, A., 1359.
- Levene, *P. A.* See also Raymond, *A. L.*
- Levens, *A. S.*, shrinkage effect of calcium chloride in concrete, B., 92.
- Leventis, *C.*, serum; gland serum; antitubercular serum, (P.), B., 730.
- Lever Bros., Ltd., and Thomas, *R.*, soap powder and the like, (P.), B., 455.
- Levi, *G. R.*, crystallographic identity of the two forms of mercuric oxide, A., 1079.
- Levi, *G. R.*, and Celeri, *A.*, pyrophoric lead, A., 695.
- Levi, *G. R.*, and Fontana, *C. G.*, particle size in precipitated zinc sulphide, A., 1090.

- Levi, *M. G.*, and Padovani, *C.*, Arsa [Istria] coals, B., 629.
- Levi, *M. G.*, Padovani, *C.*, Amati, *A.*, Burrai, *F.*, Siniramèd, *C.*, Griffi, *G.*, and Salmoiraghi, *E.*, lignites of Ribolla, B., 4.
- Levin, *A. A.*, and Meyer, *C. F.*, infra-red absorption spectra of acetylene, ethylene, and ethane, A., 570.
- Levin, *A. A.* See also Meyer, *C. F.*
- Levin, *E.* See Rowe, *F. M.*
- Levin, *E. I.*, preparing a preservable yeast preparation, (P.), B., 208.
- Levin, *K.* See Pfeiffer, *P.*
- Levin, *M.*, protein composition, (P.), B., 764.
- Lévine, *J.*, rôle of ozone in the atmosphere, A., 40.
- Levine, *M.*, Buchanan, *J. H.*, and Lease, *G.*, effect of concentration and temperature on the germicidal efficiency of sodium hydroxide, B., 332.
- Levine, *M.*, Peterson, *E. E.*, and Buchanan, *J. H.*, germicidal efficiency of sodium hydroxide, sodium carbonate, and trisodium phosphate at the same hydrogen-ion concentration, B., 70.
- germicidal efficiency of sodium hydroxide and sodium hydroxide-carbonate mixtures at the same hydrogen-ion concentration, B., 174.
- Levine, *M.*, Toulouse, *J. H.*, and Buchanan, *J. H.*, effect of addition of salts on the germicidal efficiency of sodium hydroxide, B., 246.
- Levine, *M.* See also Jenks, *H. N.*, and Peterson, *E. E.*
- Levis, *S.* See Schröder, *R.*
- Levoz, *T.*, and Naaml. Vennoots. Handelsmaatschappij Feriron, direct reduction of iron ores, (P.), B., 933*.
- Levschin, *V. L.* See Vavilov, *S. J.*
- Lévy, *A.*, protection of iron from rusting, (P.), B., 19.
- Levy, *F.* See Asphalt Cold Mix, Ltd.
- Lévy, *J.* See Hazard, *R.*
- Lévy, (*Mlle.*) *J.*, and Gallais, *P.*, molecular rearrangements accompanying deamination of alkylamines, A., 1127.
- Lévy, (*Mlle.*) *J.*, Gallais, *P.*, and Abrahams, *D.*, comparison of mechanisms of deamination of alkylamines and of dehydration of the corresponding alcohols, A., 1127.
- Lévy, (*Mlle.*) *J.*, and Lagrave, *R.*, tetraphenylethylene oxide (α -benzopinacol), A., 635.
- Lévy, (*Mlle.*) *J.*, and Sfras, *J.*, conversion of a C_6 into a C_7 ring by molecular transposition: isomerisation of the oxides of phenylcyclohexene and 1-phenyl-4-methylcyclohexene, A., 888.
- Lévy, (*Mlle.*) *J.* See also Tiffeneau, *M.*
- Levy, *L.*, manufacture of lac, varnishes, and enamels suitable for insulating purposes, (P.), B., 531.
- Levy, *L. A.*, and Almeida Accumulators, Ltd., galvanic battery, (P.), B., 900.
- Levy, *L. A.*, and Apex (British) Artificial Silk, Ltd., manufacture of cellulose acetate, (P.), B., 155*.
- Levy, *L. A.*, and West, *D. W.*, fluorescent preparations, (P.), B., 710.
- Lévy, (*Mlle.*) *L. S.*, adsorption in binary systems, A., 831.
- Lévy, (*Mlle.*) *L. S.* See also Geloso, *M.*
- Lévy, *M.*, and Prodorite, Soc. Anon., making of road surfaces, (P.), B., 369.
- Levy, *Milton*, and Doisy, *E. A.*, effect of borate on oxidation of dextrose and other sugars, A., 741.
- Levy, *P.* [with Brunotte, *H.*, and Raalf, *H.*], resin acids of *Conifera*, A., 637.
- Lewicka, *E.*, derivatives of salicylsalicylic acid, A., 637.
- Lewin, *L.*, *Banisteria Capi*, Spr.; a South American intoxicant, A., 561.
- Lewin, *L. N.*, oxidation of sulphides by perbenzoic acid. I., A., 505.
- oxidation of sulphides by perbenzoic acid. II. Preparation of sulphoxides and sulphones and a titrimetric method for determination of sulphoxides, A., 999.
- Lewinski, *W.* See Mozolowski, *W.*, and Parnas, *J. K.*
- Lewis, *A.*, [plates for] galvanic batteries, (P.), B., 98.
- Lewis, *A. W.* See Rhodes, *F. H.*
- Lewis, *B.*, photochemical decomposition of hydrogen iodide; mode of optical dissociation, A., 31.
- nature of active nitrogen; synthesis of ammonia from the elements, A., 258.
- photochemical decomposition of hydrogen iodide; mode of optical dissociation, A., 378.
- apparent large diameters of molecules for deactivation by collision, A., 574.
- photochemical clustering, A., 601.
- Lewis, *B.*, active nitrogen, A., 684.
- afterglow in mixtures of nitrogen and oxygen, A., 930.
- formation of ammonia from active nitrogen and active hydrogen, A., 1200.
- Lewis, *C. P.*, and Minerals Separation North American Corporation, froth-flotation concentration of ores, (P.), B., 488.
- Lewis, *E.* See Power, *W. P.*
- Lewis, *G. C.*, and Columbian Carbon Co., manufacture of pigments, (P.), B., 308.
- Lewis, *G. C.*, and Darco Sales Corporation, purification of liquids, (P.), B., 734.
- Lewis, *G. N.*, entropy at infinite pressure and the equation of state of solids, A., 11.
- Lewis, *G. N.*, and Mayer, *J. E.*, thermodynamics based on statistics. I. and II., A., 1096.
- Lewis, *H. B.* See Bodey, *M. G.*, Diack, *S. L.*, and Johnston, *M. W.*
- Lewis, *H. F.*, Hendricks, *R.*, and Yohe, *G. R.*, Wurtz reaction; factors involved in the preparation of octane, A., 988.
- Lewis, *H. F.*, and National Aniline & Chemical Co., Inc., manufacture of oxidation products of acenaphthene, (P.), B., 152.
- Lewis, *I. M.*, and Pittman, *E. E.*, correlation between differential tests for colon bacteria and sanitary quality of water, B., 286.
- Lewis, *J.*, extraction of oils, fats, etc. from [waste] animal or fish matter, (P.), B., 647.
- Lewis, *J. R.*, catalytic decomposition of sodium hypochlorite solutions. I. Mechanism, A., 376.
- Lewis, *J. W., jun.*, and Atlantic Refining Co., fractional distillation [of hydrocarbons], (P.), B., 842.
- Lewis, *N. B.* See Svedberg, *T.*
- Lewis, *R. C.* See Peabody, *W. A.*
- Lewis, *W. C. M.*, denaturation of proteins, A., 17.
- Lewis, *W. C. M.* See also Corran, *R. F.* and Escolme, *A. I.*
- Lewis, *W. K.*, simplified calculations in design of natural gasoline absorbers, B., 558.
- Lewis, *W. K.*, and Frolich, *P. K.*, synthesis of methyl alcohol from carbon monoxide and hydrogen, B., 359.
- Lewis, *W. K.*, and Goodyear Tire & Rubber Co., production of carbon black, (P.), B., 470.
- Lewis, *W. K.*, and McAdams, *W. H.*, computation methods in counter-current absorption systems, B., 351.
- Lewis, *W. K.*, and Standard Oil Development Co., dehydration of alcohol, etc., (P.), B., 808.
- Lewis, *W. K.*, Wells, *A. A.*, and Standard Oil Development Co., fractionation of hydrocarbons, (P.), B., 632.
- Lewis, *W. K.* See also Frolich, *P. K.*, and Keevil, *C. S.*
- Lewis, *W. L.* See Greene, *R. D.*, and Wolfson, *M. L.*
- Lewkowitsch, *E.*, ultra-violet absorption spectrum of chlorophyll in alcoholic solution, A., 813.
- Lewy, *F.* See Rupp, *E.*
- Lewy, *K.* See Ruhemann, *S.*
- Ley, *H.* [with Heidbrink, *W.*], absorption of light by solid and dissolved salts and absorption by ions, A., 935.
- Ley, *H.*, and Arends, *B.*, absorption of light in the ultra-violet by simple amino-acids, A., 218.
- Ley, *H.*, and Kirchner, *V.*, internal friction of highly viscous substances, A., 942.
- Ley, *H.*, and Vanheiden, *F.*, spectroscopic determination of very small amounts of benzene, A., 51.
- Liang, *H.* See Wislicenus, *H.*
- Liang, *T. H.* See Courtot, *C.*
- Liban, *T.*, application of zinc coatings to iron articles, (P.), B., 96.
- coating of iron articles with tin and zinc, (P.), B., 127.
- Lichtenberger, *T.*, and Flor, *K.*, production of alkaline-earth sulphides from alkaline-earth sulphates, (P.), B., 403.
- Lichtenstein, *N.* See Karrer, *P.*
- Lichtenthaler, *F. E.*, concentration of aqueous solutions of fatty acids, (P.), B., 360.
- Lichtwitz, *L.*, and Conitzer, *L.*, influence of the thyroid hormone on protein metabolism, A., 206.
- Lieb, *H.*, storage of cerebrosides in splenomegaly (Gaucher's type), A., 86.
- Lieb, *H.*, and Wintersteiner, *O.* [with Frost, *W.*], diphenylamine- and triphenylamine-arsenic acids. I. Action of arsenic acid on diphenylamine, A., 312.
- Lieb, *H.* See also Wintersteiner, *O.*
- Lieben, *F.*, and Ehrlich, *G.*, behaviour of aldol in the animal body and in fresh organ pulp, A., 1276.
- Lieben, *F.*, and Kronfeld, *P.*, effect of illumination on the proteins of the lens of the eye, A., 1279.

- Lieben, *F.*, and Müller, *Robert*, bromine uptake of caseinogen and of caseinogen keratin hydrolysates, A., 1388.
- Liebert, *F.*, do bacteria reduce phosphate? A., 924.
- Liebert, *F.*, and Deerns, *W. M.*, Vorce's method for determination of small quantities of phenol in impure water, B., 246.
- determination of oxygen in water, B., 656.
- Liebeschütz-Plaut, *R.*, and Schadow, *H.*, cause of the specific dynamic action of albumin. II. and III., A., 1050.
- Liebov, *S. L.*, determination of chlorides in blood or urine, A., 1045.
- determination of inorganic phosphate in blood-serum, A., 1391.
- Liebowitz, *I.* See Stein, *H.*
- Liebowitz, *J.* See Loewy, *A.*
- Liebreich, *E.*, relation between the chemical behaviour and overvoltage of metals, A., 482.
- valency of chromium in its deposition from aqueous solutions of chromic acid, A., 483.
- decomposition of chromium ores and production of electro-deposited chromium, (P.), B., 58.
- regeneration of chromium-plating baths, (P.), B., 932.
- Liebreich, *E.*, and Wiederholt, *W.*, cathodic overvoltage, A., 483.
- Liehr, *O.*, soil experiments, B., 496.
- Liempt, *J. A. M. van*, production of metallic single crystals, A., 7.
- Liempt, *J. A. M. van*. See also Geiss, *W.*
- Liepatov, *S.*, viscosity and hydration. III. Kinetics of syneresis, A., 127.
- viscosity and hydration. II., A., 233*.
- viscosity and hydration: fluids separated by syneresis and the theory of syneresis, A., 238.
- viscosity and hydration of emulsoids, A., 474.
- viscosity and hydration. IV. Properties of liquid formed during syneresis and the theory of syneresis, A., 706.
- formation of lakes of alizarin, B., 475.
- Liepatov, *S.* [with Salgaller, *H.*], heterogeneous reactions with a continuously changing solid phase. I., A., 250.
- Lier, *S. K. D. M. van*, refrigerating apparatus of the absorption type, (P.), B., 628, 774.
- Lierg, *D.*, Pokorny, *K.*, and Ross, *L.*, colour images, especially for multi-colour photography, (P.), B., 70.
- Liesche, *O.*, nomography. I., II., III., and IV., A., 501, 610, 863, 983.
- methods for the calculation of analyses. I. and II., A., 1345; B., 657.
- Liese, *W.* See Korff-Petersen, *A.*
- Liesegang, *R. E.*, colloidal heat-indicator, A., 835.
- model of the Pickering emulsion, A., 1092.
- Liesegang, *W.* See Schmidt, *H.*
- Lieser, *T.*, constitution of cellulose xanthate, B., 742.
- Lieser, *T.* See also Bredt, *J.*, and Kalb, *L.*
- Lieske, *R.*, Bonrath, *W.*, and Winthrop Chemical Co., Inc., copper derivative for combating animal and plant pests, (P.), B., 29*.
- Lieske, *R.*, and Hofmann, *E.*, microbiology of coal and its associated strata. I. Microflora of brown coal deposits, B., 554.
- microbiology of coal and its associated strata. II. Microflora of bituminous coal deposits, B., 774.
- Lifschitz, *I.*, and Girbes, *G.*, colour, mol. wt., and electrolyte character of derivatives of triphenylmethane, A., 1001.
- Lifschitz, *I.*, and Hooghoudt, *S. B.*, [Beequerel effect], A., 597.
- Lifschütz, *I.*, metacholesterol bromide, A., 1372.
- commercial cholesterol, B., 729.
- Lightbody, *H. D.* See Huston, *R. C.*
- Lih, *K. H.* See Bailey, *C. R.*
- Likely, *W.* See Heller, *V. G.*
- Likhushin, *K.*, utilisation of acid sludge from oil distillates treated with fuming sulphuric acid, B., 375.
- Lilje, *F.*, gas burners for furnaces, (P.), B., 774.
- Lilienfeld, *L.*, manufacture of cellulose solution; manufacture of viscose, (P.), B., 188*.
- manufacture of artificial [silk] threads, (P.), B., 228, 782*.
- manufacture of artificial materials from viscose, (P.), B., 228, 810.
- manufacture of cellulose derivatives, (P.), B., 744, 811*.
- manufacture of artificial materials [from cellulose derivatives], (P.), B., 744, 853*.
- artificial thread and process for making same, (P.), B., 782*.
- cellulose ether and process of making same, (P.), B., 811*.
- preparation of cellulose ethers and alkali cellulose, (P.), B., 811*.
- manufacture of cellulose compounds, (P.), B., 853*.
- manufacture of artificial materials [from *N*-substituted cellulose urethanes], (P.), B., 853*.
- Lilienfeld, *L.*, manufacture of cellulose thiourethane esters and ethers, (P.), B., 854*.
- manufacture of artificial [viscose] threads, (P.), B., 925.
- Lilienfeld, *L.*, and Huey, *H. I.*, treatment of cotton fabric, (P.), B., 520.
- Liljenroth, *F. G.*, oxidation of ammonia by means of oxygen, (P.), B., 333*.
- production of ammonium phosphate or mixed fertilisers containing it by leaching raw phosphate, (P.), B., 539.
- production of mixed manures [fertilisers], (P.), B., 539.
- making a mixture of nitrogen and hydrogen, (P.), B., 670*.
- producing soluble phosphate fertilisers, (P.), B., 684.
- treatment of [manufacture of fertilisers from] material containing magnesium [and potassium chlorides], (P.), B., 724.
- Liljenroth, *F. G.*, Larsson, *M.*, and Phosphorus-Hydrogen Co., production of hydrogen, (P.), B., 604*.
- Lilly & Co., *E.*, preparation of a toxin specific to the pneumococcus, and of a pneumococcus antitoxin, (P.), B., 348.
- Lilly & Co., *E.* See also Shonle, *H. A.*, and Van Scoyoc, *G.*
- Lim, *R. K. S.* See Hon, *C. L.*, Ling, *S. M.*, Necheles, *H.*, and Ni, *T. G.*
- Limberg, *H. J.*, coke oven closures, (P.), B., 292.
- Limpäeher, *R.* See Grün, *A.*
- Lin, *H.*, salt requirement of tobacco grown in sand cultures, B., 584.
- Lin, *K. H.*, Wu, *H.*, and Chen, *T. T.*, digestibility of racemised caseinogen and egg-albumin, A., 446.
- denaturation of proteins. VI. Effect of denaturation on the digestibility of ovalbumin by pepsin and trypsin, A., 446.
- Linch, *F. W.* See British Dyestuffs Corporation, Ltd.
- Linck, *G.*, mineralogical constitution of clays, A., 390.
- Linck, *G.*, and Korinth, *E.*, diffusion rings and regions of crystallisation, A., 833.
- Linck, *G.*, and Noll, *W.*, "cone-in-cone" marl, A., 612.
- Lincoln, *R. B.*, and Westinghouse Electric & Manufacturing Co., induction furnace, (P.), B., 790.
- electric furnace, (P.), B., 933.
- Lind, *O.*, urease preparation, (P.), B., 797.
- Lind, *S. C.*, relation between photochemical and ionisation reactions, A., 601.
- Lind, *S. C.*, and Bardwell, *D. C.*, synthesis of ammonia by α -rays, A., 455.
- Lind, *S. C.*, and Glockler, *G.*, control of the mol. wt. of liquid hydrocarbons produced by electrical discharge in ethane, A., 988.
- Lindberg, *E.*, X-ray spectroscopic measurements of the *M*-series of the elements uranium to gadolinium, A., 1078.
- Lindberg, *J.* See Smith, *Lennart*.
- Linde, *E.*, apparatus for potentiometric titration, A., 976.
- Linde, *J. O.*, and Borelius, *G.*, X-ray and electrical investigation of the system palladium-hydrogen, A., 109.
- Linde Air Products Co. See Haynes, *P. E.*
- Lindeau, *G.* See Freundlich, *H.*
- Lindemann, *H.*, and Patst, *A.*, reactivity of halogens in aromatic combination, A., 877.
- Lindemann, *H.*, and Schultheis, *W.*, degradation of *o*-substituted aromatic acid azides, A., 1028.
- Lindemann, *H.*, and Thiele, *Hans*, constitution of azoimide and its esters, A., 937.
- Lindenberger, *E.*, determination of iodine value [or fats], B., 577.
- Linder, *A. F.* See Fischler, *F.*
- Linder, *E. G.*, photo-electric effect and surface structure in zinc single crystals, A., 8.
- Linder, *G. C.*, and Carmichael, *E. A.*, chlorides and inorganic constituents of serum and cerebrospinal fluid in meningitis, A., 322.
- Linderström-Lang, *K.*, volumetric determination of amino-nitrogen, A., 313, 536.
- indicators, A., 551, 922*.
- volumetric determination of acids and bases in various solvents, A., 977.
- homogeneity of casein, A., 1043.
- Lindfors, *K. R.*, and Michigan Sugar Co., manufacture of fertiliser material, (P.), B., 280.
- Lindhard, *P. T.*, and Smith & Co., *F. L.*, rotary kiln and cooler [for cement manufacture], (P.), B., 125, 642.
- Lindman, *K. F.*, rotation polarisation of electromagnetic waves due to tetrahedral molecule models, A., 936.
- Lindmayer, *E.*, theory of needle-shaped caoutchouc molecule in science and practice, B., 309.
- Lindner, *E.* See Marikovsky, *Z. von*.

- Lindo, J. O. See Borelius, G.
 Lindow, C. W. See Peterson, W. H.
 Lindsay, F. K., and Arizona Minerals Corporation, preparation of a base-exchange material from gels, (P.), B., 123.
 Lindsay, G. A. See Van Dyke, G. D.
 Lindsay, L., vacuum air separator, (P.), B., 628.
 Lindsay, T. See British Area Regulators, Ltd.
 Linebarger, C. E., hydrometer, (P.), B., 321.
 Ling, H. W. See Burn, J. H.
 Ling, S. M., determination of cholesterol in small amounts of blood, A., 437.
 Ling, S. M., Liu, A. C., and Lim, R. K. S., lipid metabolism of the stomach, A., 1277.
 Ling, S. M., and Liu, S. H., plasma lipoids. I. Fatty acids of blood-plasma in diabetes and nephrosis, A., 790.
 Ling, S. M. See also Tung, P. C., and Wu, H.
 Lingelsheim, A. von, occurrence of coumarin in indigenous plants, A., 335.
 new reaction of lichenin, B., 546.
 Grahe's reaction for cinchona bark, B., 546.
 Linhorst, E. F., and Schlundt, H., reduction of barium carbonate by aluminium, B., 813.
 Link, A. See Hoz, H.
 Link, K. P. See Karrer, P.
 Linneweh, W., new base from ox muscle, and its constitution, A., 665.
 synthesis of γ -dimethylaminocrotonic methylbetaine (crotonbetaine), A., 1122.
 Linnmann, W., jun., separation of liquids of different gravity, (P.), B., 249.
 [automatic] apparatus for separating benzol from waste-water, (P.), B., 292.
 apparatus for separating liquids of different sp. gr., (P.), B., 552, 554*.
 Linschoten, J. H., laboratory evaporation and filtration, A., 40.
 Linsert, O. See Butenandt, A., and Windaus, A.
 Linstead, R. P. See Goldberg, A. A.
 Lintzel, W., iron metabolism. II. Iron and hæmoglobin formation. III. Observations with animals kept in rarefied air, A., 324.
 iron metabolism. IV. Iron content of urine, A., 542.
 Linville, C. P., Mensing, C. E., and Calco Chemical Co., manufacture of globular sodium hydrogen sulphate, (P.), B., 602.
 Lipin, S. W., determination of manganese in iron and steel by the silver nitrate-persulphate method, B., 267.
 Lipman, C. B. See Sommer, A. L.
 Lipman, J. G., and Blair, A. W., availability [in soils] of nitrogen in sodium nitrate, ammonium sulphate, and dried blood with varying ratios of phosphoric acid and potash, B., 830.
 Lipman, J. G., Blair, A. W., and Prince, A. L., field experiments on the availability of nitrogenous fertilisers, 1923-1927, B., 724.
 Lipmann, F., can lactic acid disappear anaerobically from muscle? A., 198.
 mechanism of fluoride action, A., 921.
 Lipovski, M. I., relation between hardness and coefficient of expansion of minerals, A., 503.
 Lippmaa, T., significance of anthocyanins in plants, A., 801.
 Lippmann, E. O. von, [sugar-works deposits], B., 461.
 Lipschitz, W., aromatic nitro- and amino-compounds as blood-poisons, A., 326.
 Lipscomb, G. J., pressure and vacuum filter, (P.), B., 697.
 Lipsett, S. G., Johnson, F. M. G., and Maass, O., micro-calorimeter, A., 609.
 Lipsett, S. G., Johnson, F. M. G., and Maass, O., surface energy of solid sodium chloride. III. Heat of dissolution of finely-ground sodium chloride, A., 1319.
 Lipták, P., localisation of alkaloid in the seed of *Colchicum autumnale*, L., A., 1163.
 evaluation of oil seeds, B., 825.
 evaluation of ergot of rye, B., 873.
 Liss, G. See Pringsheim, H.
 Lissizin, T., products of oxidation of keratin by permanganate. II., A., 659.
 List, H., centrifugal separators, (P.), B., 430.
 Litarczek, G., oxidation processes occurring in the system plasma-potassium ferriyanide, A., 537.
 Litterscheid, F. M., use of luminescent phenomena in the examination of grape and fruit wines, B., 65.
 application of luminescence [in ultra-violet light] to the examination of apple pulp and turnip pulp, B., 544.
 Little, R. B. See Horvath, A. A.
 Little, W. T., separation of tin and arsenic compounds, (P.), B., 523.
 Littleton, J. T., jun., and Dasney, G. A., extending the life of chemical glassware, B., 14.
 Littmann, O. See Hess, K.
 Lityaski, J., and Malaehowski, R., cyclic derivatives of acetone-dicarboxylic acid. II., A., 526.
 Litzner, S. See Becher, E.
 Litzow, K. See Gehlhoff, G.
 Liu, A. C. See Ling, S. M., and Ni, T. G.
 Liu, S. H., acid-base equilibrium in the plasma in malaria, A., 791.
 regulation of the hydrogen-ion concentration of blood. IV. Chemical properties of quinone, quinol, and quinhydrone and their relation to the reduction and oxidation systems of blood. V. Influence of salts, acids, and bases, and of temperature on the course of the potential of quinone, quinol, and quinhydrone. VI. Thermodynamic action of different standard solutions on the quinhydrone electrode. VII. Relationship of buffering to the chemical reactions of quinone, quinol, and quinhydrone; buffer regulation of the chemical reactions of blood and tissue fluids. VIII. Influence of temperature on the development of potential by serum, plasma, blood, blood-corpusele suspensions, and hæmoglobin solutions during the use of the quinhydrone electrode, A., 910.
 Liu, S. H. See also Ling, S. M.
 Liubieh, M. See Povarnin, C. O.
 Livingston, R. S. See Bray, W. C.
 Livschitz, A. See Charit, A.
 Livsey, H., Holden, G. E., and Worrall, Ltd., J. & J. M., producing [pattern] effects on pile fabrics, (P.), B., 745.
 method of ornamenting textile pile fabrics, (P.), B., 856.
 Ljubarskaja, T., creatine metabolism in the brain of pigeons in hunger, and in polyneuritis, A., 1395.
 Ljubitsch, N. See Hess, K.
 Ljunggren, G., organic catalysts with hydrogen-ion optimum, A., 138.
 Ljungström, F., and Aktiebolaget Ljungströms Ångturbin, regenerative heat-exchange device, (P.), B., 42*.
 Lloyd, D. J., and Pleass, W. B., absorption of water by gelatin, A., 119.
 absorption of water by gelatin. II. The nitrate system, A., 1092.
 Lloyd, E., Brown, C. B., Bonnell, D. G. R., and Jones, W. J., equilibrium between alcohols and salts. II., A., 479.
 Lloyd, L., salivary secretions of blood-sucking insects in relation to blood-coagulation, A., 195.
 Loach, J. V. See Haworth, W. N.
 Lobeck, See Wahl, A.
 Lobel, L., tartrates and borotartrates as [photographic] restrainers, B., 875.
 Lobel, L., and Lefèvre, J., sensitometry of reversal emulsions, B., 212.
 Lobley, A. G. See Wiggins & Co., Ltd., H.
 Lobstein, E., analysis of urethral calculus, A., 321.
 Locatelli, G., glycerophosphates and inositolphosphates, B., 464.
 Locher, G. L., luminosity of flames containing sodium vapour, A., 449.
 time interval between the appearance of spectral lines in the spectra of alkali and alkaline-earth metals, A., 1167.
 Lochmüller, F., acid fixation and swelling of fibrin. III. Water- and acid-fixing power of fibrin coagulated by boiling in water, A., 789.
 Lochte-Holtgreven, W., intensity ratio of the D-lines, A., 346.
 Loekemann, G., and Ficher, H., absorption and disinfection. I., A., 675.
 Lockton, E. H. See Jupp, L. G.
 Locquin, E. R., manufacture of $\gamma\delta\delta$ -tetramethylpentan- β -one [methyl $\beta\beta$ -dimethyl-*tert*-amyl ketone], (P.), B., 597.
 Locquin, R., and Cerechez, V., preparation of ethyl aminomalonate, A., 744.
 Locquin, R., and Heilmann, R., mechanism of the oxidation of pyrazolines, A., 186.
 separation of unsaturated stereoisomeric ketones, A., 509.
 Lodge, F. See British Dyestuffs Corporation, Ltd.
 Lodge, L. See Lodge-Cottrell, Ltd.
 Lodge-Cottrell, Ltd., and Lodge, L., electrical precipitation of small particles from gases, (P.), B., 529.

- Lodocnikov, W. N., plane representation of multicomponent systems, A., 367.
- Loeb, L., Lorberblatt, I., and Field, M. E., specific action of salts in extraction of urease from amoebocytes of *Limulus*, A., 1055.
- Loeb, L. B., duration of the existence of doubly-charged positive ions in gases and their detection, A., 3.
- smallest carriers of electricity in gases, A., 102.
- nature of gaseous ions, A., 932.
- Loeb, L. B., and Cravath, A. M., chamber for the study of ions and electrons in gases, A., 609.
- Loeb, L. B., and Du Sault, L., mobilities of gaseous ions in hydrogen sulphide-hydrogen mixtures, A., 453.
- Loeb, L. B. See also Du Sault, L.
- Loeb, L. F., and Krüger, D., condition of the ("free") sugar in serum, A., 786.
- Loebel, Z. C., deaminised gelatin, A., 706.
- Loebich, O. See Tammann, G.
- Loebmann, S. See Deutsch, D.
- Löffler, H. See Strache, H.
- Loeffler, K., relation of bile acids to food cholesterol, A., 1398.
- Löfquist, H. See Benedicks, C.
- Lögstrup, M. See Hevesy, G. von.
- Löhr, G. See Flaschenträger, B.
- Loele, W., oxidising substances in animal cells, A., 439.
- Loeper, M., Decourt, J., and Garcin, R., sulphur-fixing and -oxidising function of the liver, A., 791.
- Loeper, M., Garcin, R., Lesure, A., and Tonnet, J., losses of sulphur due to hemolysis and its fate in the organism, A., 547.
- Loeser, A. See Kuhn, P.
- Löevenhart, A. S. See Wakerlin, G. E., and Walton, D. C.
- Löevskiold, H. See Poulsen, E.
- Lövgren, T. See Euler, H. von.
- Löw, A., and Pfeiler, R., fat metabolism. II. and III., A., 553.
- Löw, A. See also Schur, H.
- Loew, A. M. See Jansen, W. H.
- Löw, E. See Verein f. chem. Ind. A.-G.
- Löwe, F., hand spectroscopy with new reagent tube condenser, A., 265.
- spectrum analysis of minerals, A., 723.
- simplified refractometer for sugar and oils, B., 1.
- measurement of colour of leather with the Pulfrich photometer, B., 534.
- Loewe, S., manufacture of electrical resistance bodies and machine therefor, (P.), B., 23.
- obtaining a perfect high vacuum in electric discharge tubes, (P.), B., 717.
- obtaining a very high vacuum [in electric discharge tubes], (P.), B., 717.
- dispersing magnesium in vacuum tubes, (P.), B., 760.
- incandescence cathode for electron-discharge tubes, (P.), B., 933.
- Loewen, D. F. See Kendall, E. C.
- Loewen, H., constitution of caoutchouc, B., 793.
- Löwenberg, K. See Fischer, F. G.
- Löwenstein, L., determination of the absolute moisture content of air and other gases, (P.), B., 42.
- Loewi, O., structure-fixation of dextrose and its significance in the fate of dextrose, A., 205.
- glycamin and insulin, A., 799.
- Loewy, A., and Liebowitz, J., changes of the liver during diminished atmospheric pressure and during autolysis, A., 325.
- Loewy, A. See also Bornstein, A.
- Löwy, M. See Chemische Fabrik Johannisthal G.m.b.H.
- Löwy, O. See Müller, W. J.
- Logan, A. V. See Davis, T. L.
- Logan, J. I., and Industrial Appliance Co., maturing of flour, (P.), B., 106.
- Logan, K. H., and Ewing, S. P., external corrosion of copper and brass service pipe [for water], B., 818.
- Lohaus, H., attempted synthesis of isomerides of piperic acid, A., 1005.
- Lohéac, P. See Paget, M.
- Lohmann, A. See Stenström, W.
- Lohmann, H., manufacture of very hard metallic alloys, (P.), B., 59*.
- Lohmann, K., isolation of various natural phosphoric acid compounds and their homogeneity, A., 665.
- occurrence and decomposition of pyrophosphate in muscle, A., 1054.
- Lohmann, K. See also Meyerhof, O.
- Loi, C. F. See Brown, F. E.
- Loisa, O., sensitising photographic films or plates, (P.), B., 213.
- Loiseau, J., study of copper alloys by X-ray diffraction, A., 821.
- Loiseleur, J., hydrolysis of sugars by membranes in presence of electrolytes, A., 359.
- Lokey, S. O., ammonia condenser, (P.), B., 482.
- Lomax, E. L. See Lucas, O. D.
- Lomax, F. B., production of [filtered] syrups, (P.), B., 833.
- Lombaers, R., rôle of buffer substances in fermentation industries, B., 103.
- Lombard, V., diffusion of hydrogen through nickel, A., 1085.
- permeability of metals towards gases, A., 1319.
- Lombroso, V., proteolytic activity of pancreatic juice and the rôle of enterokinase, A., 797.
- Lomholt, S., distribution of bismuth in the blood, A., 1151.
- Lo Monaco, G., glycolysis in blood rendered non-coagulable by means of morphine, A., 920.
- Lonarit-Gesellschaft, conversion of cellulose derivatives into a finely powdered form, (P.), B., 187.
- London, F., quantum theory of homopolar valencies, A., 344, 1077.
- Long, B., and Société Anonyme des Manufactures des Glaces & Produits Chimiques de St.-Gobain, Chauny & Cirey, [soda-lime] glass, (P.), B., 484*.
- Long, C. N. H., effect of anaesthesia on recovery process in mammalian skeletal muscles, A., 794.
- Long, C. W. See Haworth, W. N.
- Long, E. R., and Finner, L. L., relation of glycerol in culture media to the growth and chemical composition of tubercle bacilli, A., 552.
- Long, F. A., new type of discharge in neon tubes, A., 805.
- Long, F. L. See MacDougal, D. T.
- Long, G. A. See British Thomson-Houston Co., Ltd.
- Long, J. S., and Egge, W. S., drying oils. IX. Action of cold-blowing on linseed oil, B., 718.
- Long, J. S., Zimmermann, E. K., and Nevins, S. C., drying oils. VIII. Adsorption of liquids by oil gels, B., 718.
- Long, R. J. See Green, J. B.
- Longcope, W. T., hypoglycæmia in scleroderma, A., 915.
- Longinescu, G. G., and Chaborski, (Mlle.) G., molecular association regarded as a phenomenon of molar concentration, A., 708.
- Longinescu, I. N., new additive property of liquids, A., 228.
- new form of Raoult's laws, A., 365.
- Lonsdale, G. See Ackers, Lonsdale & Co. Proprietary, Ltd.
- Lonsdale, (Mrs.) K., anisotropy of the carbon atom, A., 1079.
- Lonsdale, J. T., Florence meteorite of Williamson Co., Texas, A., 1349.
- Lonsdale, W., and Foster Wheeler Corporation, heat exchanger, (P.), B., 551.
- Loock, P. See Steinitzer, F.
- Loomis, A. G., and Perrott, G. St. J., measurement of the temperature of stationary flames, B., 881.
- Loomis, A. G., and Smith, D. F., rate of decomposition of nitrogen pentoxide at very low pressures, A., 961.
- Loomis, A. L. See Hubbard, J. C., and Richards, W. T.
- Loomis, F. W., vibrational levels and heat of dissociation of Na₂, A., 460.
- vibrational levels in the blue-green band system of sodium, A., 1297.
- new series in the spectrum of fluorescent iodine, A., 1308.
- Loomis, F. W., and Wood, R. W., rotational structure of the blue-green bands of Na₂, A., 1068.
- Loomis, F. W. See also Wood, R. W.
- Loomis, N. E. See Clark, E. M., and Howard, F. A.
- Loomis, W. E. See Appleman, C. O.
- Loon, J. van, manufacture of activated carbons and decolorising charcoals, (P.), B., 631.
- Loon, J. van. See also Steger, A.
- Looser, J. See Marwedel, J. E.
- Loppers, G., and Nys, L., silicification of roads, B., 750.
- Lorah, J. R., uranium oxide colours and crystals in low-temperature glaze combinations, B., 298.
- Lorah, J. R., Williams, K. T., and Thompson, T. G., apparatus for removal of dissolved gases from water, A., 147.
- Lorah, J. R. See also Thompson, T. G.
- Lorand, H. F. J., replaceability of the halogen atom in 1-chloro-2:4-dinitro-5-ethoxy(methoxy)-benzene by alkoxy-groups, A., 167.
- relationship between constitution and taste of some carbamide derivatives, A., 285.
- Loranger, H. R. See Loranger, U. R.

- Loranger, U. R., and Loranger, H. R., refrigerating systems, (P.), B., 916.
- Lorber, L. See Zeiss, C.
- Lorberblatt, I. See Loeb, L.
- Lord, J. See Blake, F. C.
- Lorenz, A. See Gebauer-Fülneegg, E.
- Lorenz, E., spectrum of X-rays from the back of a tungsten target, A., 1174.
- Lorenz, H., influence of temperature on the absorption bands of alkali halide phosphors, A., 347.
- Lorenz, L. See Arndt, F.
- Lorenz, R., new mass-action law. VI. Interchange of the components in the equation of the mass-action law, A., 1188.
- Lorenz, R., and Adler, H., density of fused mixtures of cadmium and potassium chlorides, A., 829.
- surface tension of some molten metals against molten salts, A., 945.
- Lorenz, R., Fraenkel, W., and Wolff, P., equilibria between metals and salts in the molten state. XI. Tin, cadmium, stannous chloride, cadmium chloride, A., 843.
- Lorenz, R., and Michael, F., pyrochemical Daniell cells, A., 1331.
- steeping and dyeing, B., 925.
- Lorenz, R., and Schulz, Georg, equilibria between metals and salts in the molten state. VII. Tin, lead, stannous bromide, and lead bromide. VIII. Tin, lead, stannous chloride, and lead chloride. IX. Zinc, cadmium, zinc chloride, and cadmium chloride, A., 594.
- equilibria between metals and salts in the molten state. X. equilibria in the molten state with aluminium as one component, A., 843.
- Lorenzo, J., [free] acyl radicals, A., 749.
- Loring, R. A. See Green, J. B.
- Lorriman, F. R. See Calcott, W. S.
- Lortie, L. See Riou, P.
- Los Angeles Chemical Co. See Wood, C. D.
- Losana, L., viscosity of fused metals and alloys. I., II., and III., A., 117, 470.
- Losana, L. See also Montemartini, C.
- Loschkarov, A., importance of carbon monoxide as a reducing agent in the manufacture of hydrogen by the contact process, B., 89.
- Loskit, K., polymorphism, A., 1327.
- [polymorphism and solubility of] triglycerides, A., 1327.
- Lott, W. A., colloidal barium sulphate, A., 704.
- Lotter, P. See Rupe, H.
- Lottermoser, A., antimonite acid, A., 380.
- Lottermoser, A., and Buchholz, E., conductivity vessels, A., 1349.
- Lottermoser, A., and Petersen, W., adsorption of excess ions by positive and negative silver halide and silver thiocyanate sols, A., 580.
- Lottermoser, A., and Radestock, H., mercerisation of commercial cellulose and cellulose viscose, B., 189.
- Lotze, F., pleochroic haloes and the age of the earth, A., 150.
- at. wt. of actinium-lead, the last member of the actinium series, A., 684.
- at. wt. of proto-actinium, A., 932.
- anomalies in the position of the innermost ring in pleochroic uranium haloes, A., 1303.
- Lougovoy, B. N., and Ellis-Foster Co., manufacture of synthetic resins, (P.), B., 131.
- Louisville Drying Machinery Co., Inc. See Credo, J.
- Lourens, C., and General Norit Co., Ltd., gas-treating process, (P.), B., 397*.
- Louwekooymans, L. H. See Smits, A.
- Louwme, H. W. See Totttingham, W. E.
- Lovell, D. E. See Kimball, A. L.
- Lovell, W. G. See Campbell, J. M.
- Loveridge, C., and Cox, A. E., precious-metal recovery machine, (P.), B., 451.
- Lovern, J. A. See Hilditch, T. P.
- Lovett, A. B. E., and Roberts, E., relative reactivity of methylene groups in 1:3-diketones, A., 1014.
- Low, A. B., fuel composition, (P.), B., 470.
- Low Temperature Carbonisation, Ltd., and Parker, C. H., retort furnaces for the distillation of coal and similar carbonaceous substances, (P.), B., 180.
- distillation of coal and similar carbonaceous substances, (P.), B., 394.
- Lowe, G. M. See Farrow, F. D.
- Lowe, H., Cheshire butters and cheeses of low Reichert-Meissl value, B., 241.
- Lowenhielm, G. See Blix, G.
- Lowery, H., refraction and dispersion of air, oxygen, and gaseous chloroform; gaseous refractivities of acetone, methyl ether, and ethyl ether, A., 220.
- Lowry, A. See Kesler, C. G.
- Lowry, C. D., jun. See Egloff, G.
- Lowry, H. H., and Bell Telephone Laboratories, Inc., insulation of finely-divided magnetic material [for dust cores], (P.), B., 162.
- Lowry, H. H., and Bozorth, R. M., adsorption of gases by graphitic carbon. II. X-Ray investigation of the adsorbents, A., 1182.
- Lowry, H. H., and Erickson, W. R., densities of co-existing liquid and gaseous carbon dioxide and solubility of water in liquid carbon dioxide, A., 11.
- Lowry, H. H., and Olmstead, adsorption of gases by solids with special reference to the adsorption of carbon dioxide by charcoal, A., 12.
- Lowry, T. M., electronic theory of valency. V. Molecular structure of strong and weak electrolytes: (a) complete ionisation, A., 689.
- electronic theory of valency. VI. Molecular structure of strong and weak electrolytes: (b) Reversible ionisation, A., 817*.
- problems in homogeneous catalysis, A., 1334.
- Lowry, T. M., Goldstein, (Mrs.) R. R., and Gilbert, F. L., valency. VIII. Extinction coefficients and molecular conductivities of Vernon's isomeric α - and β -dimethyltelluronium salts: molecular structure of quadrivalent tellurium compounds, A., 349.
- Lowry, T. M., MacConkey, C. A. H., and Burgess, H., dynamic isomerism. XXVII. Absorption spectra of prototropic compounds; physical properties of the stable and labile forms of benzoylcamphor, A., 766.
- Lowry, T. M., and Marsh, M. C., scattering of light by graded particles in suspension, B., 175.
- properties of powders. IX. Scattering of light by graded particles in suspension, B., 319*.
- Lowry, T. M., and Owen, G. G., mechanism of chemical change. I. Promotion and arrest of the mutarotation of tetra-acetylglucose in ethyl acetate, A., 967.
- Lowry, T. M. See also Berry, A. J., Gilbert, F. L., and Smith, G. F.
- Lowsma, H. See Totttingham, W. E.
- Lowson, W., "greasy" burettes, A., 143.
- Lowson, W. See also Dawson, H. M.
- Loy, G. S., pulverising apparatus for solid fuels, (P.), B., 150*.
- Loyarte, R. G., quantum rotation of the mercury atom, A., 100.
- Loyarte, R. G., and Williams, A. T., absorption spectrum of thallium vapour between 7000 and 1850 Å., A., 929.
- Lubarski, G. D., and Dikova, M. G., determination of active oxygen in a mixture of persulphuric acid and hydrogen peroxide, A., 978.
- Lubetz, A. See Schwarz, K.
- Lubinskaja, F. See Salkind, J.
- Lubovich, V. P., infra-red spectrum of mercury, A., 1298.
- Lucas, C. C. See King, E. J.
- Lucas, E. See Grassheim, K.
- Lucas, E. A., and Molybdenum Corporation of America, manufacture of molybdenum alloying compounds, (P.), B., 790.
- Lucas, E. E., gas burners for heating furnaces, etc., (P.), B., 916.
- Lucas, G. H. W., toxicity of anaesthetics containing bromine and chlorine, A., 1399.
- Lucas, H. J., and Dillon, R. T., synthesis of Δ^2 -butene, A., 732.
- Lucas, H. J., and Scudder, N. F., preparation of 2-bromo-*p*-cresol from *p*-nitrotoluene, A., 284.
- Lucas, H. J. See also Buxton, J., and Dillon, R. T.
- Lucas, N. S. See Hume, E. M.
- Lucas, O. D., Lomax, E. L., and V. L. Oil Processes, Ltd., cracking of liquid hydrocarbons, (P.), B., 920*.
- Lucas, O. D. See also Vickers, Ltd.
- Lucas, P. S., and Roberts, W. J., relation of milk solids-not-fat to overrun and quality of ice cream, B., 585.
- Lucas, R., effect of temperature on the rotatory powers of [optically] active substances, A., 461.
- rotatory dispersion of solutions, A., 816.
- Luck, J. M., determination of amino-acid-nitrogen in animal tissues, A., 665.

- Luck, J. M., metabolism of amino-acids, A., 668.
determination of carbamido, A., 1229.
- Luck, J. M., Morrison, G., and Wilbur, L. F., effect of insulin on amino-acid content of blood, A., 676.
- Luck, J. M. See also Kiech, V. C.
- Lucke, B. See McCutcheon, M.
- Lucke, H., uric acid determination in urine as a test of kidney function, A., 320.
- Luckhardt, A. B., Barlow, O. W., and Weaver, M., preparation of highly active pancreatic secretin solution, A., 91.
- Luckmann, H. See Thiel, A.
- Ludwig, S. See Bergmann, M.
- Ludford, R. J., microchemistry of the cell. I. Chromatin content of normal and malignant cells, A., 439.
vital staining of normal and malignant cells. I. Vital staining with trypan-blue and the cytoplasmic inclusions of liver and kidney cells, A., 1046.
- Ludloff, H., synthesis of molecules, A., 222.
colouring [of band spectra] and [electron] exchange, A., 1065.
- Ludwig, E. See Schmid, L.
- Lübke, H. See Siemens-Schuckertwerke G.m.b.H.
- Lueck, R. H., and Blair, H. T., corrosion in the tin can. I. Electrochemical relations of iron and tin, B., 819.
- Lueck, R. H., and United States, enamel for coating cans [to contain foodstuffs], (P.), B., 457.
- Lüdin, M. See Gigon, A.
- Lüdtke, M., cell membrane of plants. II., A., 559.
substances accompanying cellulose. IV. Cell membrane of plants, A., 1361.
- Lüdtke, M. See also Hess, K.
- Lüers, H., importance in brewing of the ethereal oils from different types of hops, B., 65.
correction of the hardness of brewing water by lactic acid, B., 65.
- Lüers, H., and Bader, J., purification of rennin, A., 203.
- Lüers, H., and Volkamer, W., hemicellulose-splitting enzyme (cytase) of malts, B., 281.
- Lueg, P. See Driesch, T.
- Lühder, E., alcohol content of wash-water of carbonic acid from closed fermentation vessels, B., 170.
method of brewing with flaked potatoes, B., 908.
- Lühr, F. See Weigert, F.
- Lührig, H., natural and artificial black sand for demanganising water, B., 246.
- Lührs, A. See Remy, H.
- Lührs, O. See Zellstoff-fabr. Waldhof.
- Luekel, W. A. See Graber, L. F.
- Lüppo-Cramer, photochemical nucleus destruction, B., 69.
intensification of the latent image, B., 69.
photographic development in bright light, B., 107.
[photochemical] bleaching-out paradoxes, B., 211.
anomalous destruction of nuclei, B., 211.
denucleation and desensitisation, B., 211.
fastness to washing of dyed silver bromide, B., 213.
action of dyes in fogging reactions, B., 285.
solarisation of silver bromide, B., 655.
Herschel effect by exposure to short wave-lengths, B., 692.
Sterry effect with silver chloride, B., 692.
destruction of the image by desensitisers, B., 693.
reduction of the latent image, B., 731.
nucleus poisoning with dyes, B., 731.
- Lüscher, E. See Elektrizitätswerk Lonza.
- Lüty, W. See Schertel, L.
- Luft, F. See Ruff, O.
- Lugovkin, B. P. See Postovski, I. J.
- Lühr, F. See Weigert, F.
- Luis, C. G., [perchlorate] explosives, (P.), B., 838.
- Lukanin, A. A. See Tronov, B. V.
- Lukanin, M. A. See Tronov, B. V.
- Lukas, J., and Jilek, A., electrolytic separation of bismuth at low potential, A., 146.
- Lukas, J. See also Jilek, A., and Svagr, E.
- Lukens, A. R., and Richardson Co., de-inking of paper, (P.), B., 853.
- Lukens, H. S., influence of the cathode on the electrodeposition of chromium, B., 414.
- Lukes, R., pyrrolones, A., 299.
- Lukes, R., and Prelog, V., action of aromatic Grignard reagent on methylsuccinimide; synthesis of 2:5-diphenyl-1-methylpyrrole, A., 897.
- Lukes, R. See also Votocek, E.
- Lukirsky, P., and Prilezaev, S., the normal photo-electric effect, A., 931.
- Lukovnikov, E. K. See Prianishnikov, N. D., jun.
- Lumière, A., and Grange, R. H., comparative toxicity of sera of arterial and venous blood, A., 662.
- Lumière, A., Lumière, L., and Seyewetz, A., errors produced in slow development with glycine, B., 212.
colour of developed silver images, B., 349.
developing properties of *meta*-derivatives, B., 693.
- Lumière, L. See Lumière, A.
- Lummis, C. W., and Morgan Construction Co., gas producer, (P.), B., 149, 395.
- Lund, H., constitution of phenolphthalein. I. Preparation of compounds of phthalein type, A., 884.
- Lund, J., exploitation of whales, B., 339.
- Lundberg, C. G. A., manufacture of waterproof compositions, (P.), B., 364.
- Lunde, G., black nickel oxide, A., 382.
iodine metabolism. I. Urinary excretion of iodine by the inhabitants of a Norwegian goiterous district, A., 441.
urinary elimination of iodine and goitre prophylaxis with sea fish, A., 1048.
- Lunde, G., and Closs, K., iodine compounds in fish products, A., 913.
- Lunde, G., and Johnson, M., occurrence and detection of the platinum metals in Norwegian rocks. II., A., 731.
- Lunde, G. See also Barth, T.
- Lundegårdh, H., calculation of soil respiration, B., 458.
determination of carbon dioxide [in air], B., 892.
- Lundell, G. E. F., and Knowles, H. B., analysis of soda-lime glass, B., 14.
determination of iron in glass sand, B., 483.
- Lundén, H., control of spectrophotometric measurements [of sugar juices], B., 30.
judging the quality of refined and direct-consumption sugars, B., 102.
- Lundgren, K. T. R., centrifugal apparatus for the separation of suspended particles in a liquid, (P.), B., 507.
- Lundin, B., production of carbonic acid gas, (P.), B., 14, 124.
- Lundin, H., and Ellburg, J., volumetric determination of carbon dioxide in beer, B., 725.
- Lundsgaard, C., mode of action of insulin, A., 448.
- Lunevsky, I. See Ballif, L.
- Lunn, W. M. See Moss, E. G.
- Lunt, R. W., activation of hydrogen by electric discharge, A., 341.
- Lupin, F. von. See Wittig, G.
- Lupn. See Kohn-Abrest, E.
- Lurgi Apparatebau-Ges.m.b.H., fractional precipitation of the products of distillation from gases, (P.), B., 590.
apparatus for electrical precipitation of suspended particles from gases, (P.), B., 824.
- Lush, E. J., activity of a nickel catalyst, B., 182.
- Luther, F., and Polysius, G., rotary kiln for burning, roasting, and sintering of mineral materials, (P.), B., 608.
drying apparatus for rotary kilns, (P.), B., 627.
- Luther, F. See also Pummerer, R.
- Luther, M. See I. G. Farbenind. A.-G.
- Luther, S. G., production of a [vulcanised] rubber product, (P.), B., 61.
- Lutochin, S. N., sugar content of water- and other melons, B., 67.
importance of water-melon syrups as foods, B., 67.
- Luts, K., application of the float-and-sink method for isolating the organic constituents of carbonaceous shales, B., 735.
- Lutter, C. See I. G. Farbenind. A.-G.
- Lutz, A. See Eddy Co., Ltd., E. B.
- Lutz, R. P. See Anderegg, F. O.
- Lux, A. See Freudenberg, K.
- Luyken, H., cupola with forehearth, (P.), B., 788.
- Luyken, W., and Bierbrauer, E., technical and economic factors in the dressing of spathic iron ore from the San Fernando mine, B., 335.
- Lyasko, B. A., influence of sugar in the waste waters used for slaking lime on the filtration of the juices, B., 540.
- Lydén, R., formation of iodates from iodides, A., 1344.
- Lyell, J. S. J. See Monger, C. C.
- Lyford, C. A., and National Aniline & Chemical Co., Inc., sublimation apparatus, (P.), B., 287.
- Lykken, H. G., kiln, (P.), B., 175.
pulveriser, (P.), B., 772.
low-temperature distillation apparatus, (P.), B., 918.

- Lyle, A. E., and Westinghouse Lamp Co., cleaning-up of residual gases [in thermionic valves], (P.), B., 306.
 Lynch, G. R., technique of the precipitin test and its forensic value, A., 191.
 precipitin test for blood, A., 1046.
 Lynn, F. E., grease extractor, (P.), B., 792.
 Lyon, C., [hot-water pipe system for] drying of hay, straw, etc., (P.), B., 765.
 drying of hay, straw, etc., (P.), B., 799.
 Lyon, C. E., and Hooker Electrochemical Co., heat-producing composition, (P.), B., 784.
 Lyons, R. E. See Bradt, W. E.
 Lyons & Co., Ltd., J., Lampitt, L. H., and Bushill, J. H., extraction and preparation of animal fats rich in vitamins, (P.), B., 718.
 Lyubimov-Kremleva, N. See Engelhardt, W. A.
 Lynbovtzeva, V. D. See Sokolov, A. S.

M.

- Ma, W. C. See Chang, H. C.
 Maas, F., and Natural Flower Metalizing Co., Inc., art of incrusting galvanoplasty, (P.), B., 306.
 Maass, C. E., and Maass, O., sulphur dioxide and its aqueous solutions. I. Analytical methods, vapour density, and vapour pressure of sulphur dioxide; vapour pressure and concentrations of the solutions, A., 724.
 Maass, E., and Kempf, R., manufacture of light-fast lithopone or zinc sulphide, (P.), B., 100.
 Maass, O. See Coffin, C. C., Cuthbertson, A. C., Lipsett, S. G., and Maass, C. E.
 Mabee, C. R. See United States Farm Feed Corporation.
 Mabee, G. E., fusion of coal, coke, and motor fuel by sodium peroxide, B., 555.
 Mabee, W. C., concrete control methods in the construction of a filtered-water reservoir, B., 318.
 McAdam, D. J., jun., corrosion of metals as affected by time and by cyclic stress, A., 717.
 McAdams, W. H. See Lewis, W. K.
 McAlister, F. B., and Kenner, J., molecular configurations of polynuclear aromatic compounds. VII. 5:5'-Dichlorodiphenyl-3:3'-dicarboxylic acid, A., 1006.
 Macallum, A. D., and Whithy, G. S., tetramethylbutadiene [γ -dimethyl- Δ^8 -hexadiene], A., 614.
 derivatives of β -dimethylbutadiene, A., 614.
 McAlpine, I. M. See Patterson, T. S.
 Macao-Walzenmühlenges. m.b.H., grinding mills, (P.), B., 878.
 Macara, T. See Hinton, C. L.
 Macaskill, E. H. See Green, H. H.
 McAulay, A. L., and Mellor, D. P., overpotentials produced by films of hydrogen less than one molecule thick, A., 959.
 McBain, J. W., soaps as colloidal electrolytes, A., 836.
 McBain, J. W., and Buckingham, R., hydrolysis of solutions of sodium palmitate as measured by extraction with *p*-xylene, A., 128.
 McBain, J. W., and Eaton, M., hydrolysis in solutions of potassium laurate as measured by extraction with benzene, A., 1093.
 McBain, J. W., and Kellogg, F., salting-out of gelatin into two liquid layers with sodium chloride and other salts, A., 1323.
 McBain, J. W., and Lee, W. B., adhesives and adhesion: gums, resins, and waxes between polished metal surfaces, B., 1.
 adhesives and adhesion; pure chemical substances as adhesives, B., 695.
 McBain, J. W., and Willavoys, H. J., effect of electrolytes on the viscosity of solutions of sodium palmitate, A., 15.
 McBean, D. M. See Howe, D. W.
 Macbeth, H. F. See Cunningham, E. L.
 McBurney, J. D. See Du Pont de Nemours & Co., E. I.
 McCaa, G. S., and Davis, J. A., determination of carbon monoxide in mines, A., 608.
 McCabe, E. H., and French Battery Co., dry cell, (P.), B., 490.
 McCabe, W. L. See Mead, B.
 McCalip, M. A. See Keane, J. C., and Paine, H. S.
 McCallum, S. P., high-frequency discharges in gases, A., 342.
 McCallum, S. P., and Perry, W. E., nitrogen after-glow, A., 684.
 MacCallum, S. P. See also Townsend, J. S.
 McCamish, F., and Salathe, A., m. p. of *m*-dinitrobenzene, A., 995.
 McCarthy, B. G. See Chappell, E. L.
 McCay, C. M., Bing, F. C., and Dilley, W. E., factor *H* in the nutrition of trout, A., 926.
 effect of variations in vitamins, protein, fat, and mineral matter in the diet on the growth and mortality of eastern brook trout, A., 1397.
 McCay, C. M., and Dilley, W. E., factor *H* in the nutrition of trout, A., 1289.
 McCay, L. W., separation of arsenic from antimony, A., 384.
 Macchia, O., systematic qualitative analysis of cations without the use of hydrogen sulphide or its derivatives, A., 37.
 qualitative separation of calcium, barium, and strontium, A., 385.
 detection and determination of calcium, barium, and strontium, A., 498.
 Macciotta, E. See Sanna, A.
 McClelland, N. P., and Whitworth, J. B., organic compounds of arsenic. III. Tri-*o*-phenylenediarsine, A., 80.
 McClellan, W. S., determination of dihydroxyacetone in blood and urine, A., 437.
 McClellan, W. S., Biasotti, A., and Hannon, R. R., clinical calorimetry. XLII. Effect of dextrose and of dihydroxyacetone on metabolism, A., 1153.
 McClendon, J. F., thickness of the Helmholtz double layer, A., 22.
 determination of traces of iodine. I, A., 607.
 McClure, C. W., and Huntsinger, M. E., fat metabolism. I. Influence of single foodstuffs on blood-lipins, A., 323.
 McCluskey, K. L. See Eichelberger, L.
 McCluskey, S. B., cyaniding of ores containing precious metals, (P.), B., 305.
 recovery of precious metals from ores, (P.), B., 645.
 McCollum, E. L. See Rose, M. S.
 McCollum, E. V., Rask, O. R., and Becker, J. E., rôle of aluminum compounds in animal and plant physiology, A., 793.
 McCollum, E. V. See also Adams, G., and Tange, U.
 McCollum, E. M. See Fisher, H. L.
 McCombie, H., Scarborough, H. A., and Waters, W. A., syntheses in the phenazine series, A., 428.
 MacConkey, C. A. H. See Lowry, T. M.
 McConkie, J. E. See Parmele, H. B.
 McCormick, J. A., Cabell, C. A., and National Lime Association, cementitious composition, (P.), B., 266.
 MacCorquodale, D. W., and Adkins, H., organic titanous compound and the preparation of solutions of titanous salts, A., 990.
 McCoy, C. E. See Maxwell, J.
 McCoy, E. See Peterson, W. H.
 McCoy, R. O. See Corn Products Co., Ltd.
 McCrackan, E. F., and Passamaneck, E., manganese in urine, A., 320.
 McCracken, R. See Gilman, H.
 McCrea, W. H., specific heat of hydrogen at high temperatures, A., 226.
 specific heat of carbon dioxide, A., 696.
 theory of electric conduction, A., 933.
 McCrumb, F. R., elimination of errors in the *o*-tolidine method [for determination of chlorine in water], B., 246.
 McCnllagh, D. R., nature of the action of pancreatic extract on the inhibition of lactic acid formation in muscle, A., 550.
 McCullagh, D. R. See also Case, E. M.
 McCullough, F. S., helium space-discharge tube, (P.), B., 374.
 McCullough, J. C., and Phipps, H. E., transition temperature of carbon tetrachloride as a fixed point in thermometry, A., 1094.
 McCurdy, M., determination of potassium as chloroplatinate, A., 859.
 McCnrdy, W. H., fine structure of some mercury lines, A., 100, 211*.
 McCutchen, D. T. See Evenson, O. L.
 McCntcheon, M., and Lucke, B., effect of certain electrolytes and non-electrolytes on permeability of living cells to water, A., 1278.
 McDermott, P. J. See Cox, K.
 Macdonald, D., and Macdonald, R. F., siliceous composition flooring material, (P.), B., 896.
 McDonald, F. C., some hydrocarbon bands, A., 1304.
 Macdonald, I. G., and Young, E. G., digestibility of white of egg, A., 1046.

- Macdonald, I. G. See also Young, E. G.
 Macdonald, J. Y., photochemical decomposition of nitrous and nitric oxides, A., 254.
 McDonald, (Miss) M. C. M., emission spectra of various elements in the lower quartz region, A., 211.
 Macdonald, R. F. See Macdonald, D.
 McDonald Construction Co., W. P. See Berger, O. H.
 MacDougall, D. T., and Long, F. L., characters of cells attaining great age, A., 558.
 MacDougall, D. T., and Moravek, V., activities of a constructed colloidal cell, A., 84.
 McDougal, T. G., heat-treatment of ceramic articles, (P.), B., 817.
 MacDongall, A. J., recovery of alkali chlorides from minerals, (P.), B., 927.
 McDougall & Yalding, Ltd., and Fryer, P. J., insecticides, sheep-dips, etc., (P.), B., 142.
 McDowall, F. H., constituents of *Myoporum laetum*, Forst. ("Ngaio"). III. Oxide rings of ngaione, A., 765.
 McDowell, S. J., and Lee, H. C., petrographic study of some slags from boiler furnaces, B., 264.
 McDowell, S. J., and Murphy, R. M., firing terra cotta, B., 858.
 McElvain, S. M., piperidine derivatives. IV. Substituted piperidinoalkyl benzoates and *p*-aminobenzoates, A., 71.
 McElvain, S. M. See also Thayer, J. R.
 McFarland, J. L., and General Electric Co., electric furnace, (P.), B., 374.
 Macfarlane, M. G. See Harden, A.
 McFetridge, J., and American Sheet & Tin Plate Co., manufacture of metal-coated sheets and plates, (P.), B., 788.
 McGahey, R. W. See Yoe, J. H.
 McGahon, J. C. See Ryan, H.
 McGavack, J., and Naugatuck Chemical Co., treatment of [rubber] latex, (P.), B., 62.
 McGavack, J. See also Gibbons, W. A., Naugatuck Chemical Co., and United States Rubber Plantations, Inc.
 MacGee, A. E., thermal characteristics of clays, B., 263.
 physical properties of chemical stoneware bodies, B., 264.
 MacGee, A. E. See also Purdy, R. C.
 McGee, F. R., dust catcher [for gases], (P.), B., 508.
 McGeorge, W. T., Breazeale, J. F., and Burgess, P. S., aluminium hydroxide in alkaline soils and its effect on permeability, B., 536.
 McGeorge, W. T. See also Breazeale, J. F., and Burgess, P. S.
 MacGillivray, J. H. See Brooks, R. E.
 McGlumphy, J. H. See Gilman, H.
 McGlynn, A. See Brown, O. W.
 McGlynn, W. See Coombs, F. A.
 McGookin, A., and Sinclair, D. J., isomerism of styryl alkyl ketones. IV. 4-Hydroxy- and some derivatives of 2-hydroxy-styryl alkyl ketones, A., 761.
 McGougan, J., and Hunter, J., mixing or emulsifying apparatus, (P.), B., 589.
 Macgowan, J. K. See Guggenheim, D.
 McGrane, N. M., and International Precipitation Co., recovery of potassium chloride, (P.), B., 927.
 MacGregor, J. See Wallace, W. M.
 McGuinness, M., furnace for roasting ore, (P.), B., 127.
 McGuire, G. See Greenwald, I.
 McGurty, W. J., and Bartlett Hayward Co., liquid and gas contact apparatus, (P.), B., 176.
 Mach, F., and Herrmann, R., detection and determination of chlorate ion in soils, B., 938.
 Mach, R., tanning, currying, and dyeing of [dog] skins, B., 133.
 McHargue, J. S., Healy, D. J., and Hill, E. S., relation of copper to haemoglobin content of rat blood, A., 1150.
 Machatschki, F., system beryllium oxide-silicon dioxide, A., 594.
 formula and crystal structure of tetrahedrite, A., 1080.
 structure and constitution of feldspars, A., 1349.
 Machatschki, F. See also Gaertner, H. R. von.
 Machebaut, M., phosphorus of serum, A., 83.
 Machek, G., and Grat, A., course of the Friedel-Crafts reaction with anthraquinone-1:2-dicarboxylic anhydride, A., 1015.
 Machemer, H. See Kuhn, R.
 McHenry, M. J. See Popov, S.
 Machlett, R. R., and Rainbow Light, Inc., argon-mercury discharge tube; luminous tube, (P.), B., 760.
 Machold, K., sulphuric acid reaction in deproteinised uraemic serum, A., 1396.
 Macht, D. I. See Dunning, F.
 McIlwraith, C. G. See Cox, R. T.
 McInerney, P. J. See Forrester, J. D.
 MacInnes, D. A., differential electrometric titration as a precision method, A., 36.
 effect of the position of substitution on the ionisation constants of some organic acids, A., 1326.
 McIntire, C. V., and Consolidated Coal Products Co., retort-furnace, (P.), B., 801.
 MacIntire, W. H., fate of fractional incorporations of burnt lime in two soil zones, B., 168.
 McIntosh, D., systems hydrogen chloride-ethyl ether, and hydrogen chloride-acetone, A., 594.
 oxonium compounds, A., 733*.
 McIntosh, D. See also Butler, K. H., and Chipman, H. R.
 McIntosh, J. F. See Hastings, A. B.
 Macintyre, W. H. See Shaw, W. M.
 Mack, E., jun. See Harris, P. M.
 Mack, J. E., and Cork, J. M., X-ray *K* absorption in elements tungsten (74) to uranium (92), and *K* screening numbers, A., 101.
 Mack, J. E., Laporte, O., and Lang, R. J., application of the X-ray laws to optical spectra of higher rank, and the classification of Ga IV and Ge V, A., 679.
 Mack, W. B., and Haley, D. E., effect of potassium salts on availability of nitrogen in ammonium sulphate, B., 535.
 McKay, R. F. See Dunlop Rubber Co., Ltd., and Klein, P.
 McKay, R. J., and Ackerman, D. E., determination of sulphur dioxide in small amounts in the atmosphere, B., 482.
 McKee, J. R., Mann, C. A., and Montillon, G. H., furfural[dehyde] as a possible ionising medium, B., 453.
 McKee, R. H., and Depew, H. A., "normal ageing" of compounded rubber, B., 493.
 McKee, R. H., and Manning, P. D. V., shale oil. I. Genesis of oil shale in relation to petroleum and other fuels. II. Gases from oil shale, B., 5.
 McKee, R. H., and Parker, H. H., determination of nitrogen bases in petroleum oils, B., 43.
 McKee, R. M., filtering material and [water] filtration, (P.), B., 838.
 McKeefe, E. P. See Bradley, L.
 McKeehan, L. W., iron crystals, A., 1344.
 McKelvey, J. B. See Holmes, H. N.
 McKenzie, A., and Lesslie, M. S., carbomethoxy-derivatives of hydroxy-acids, A., 288.
 McKenzie, A., and Walker, (Miss) N., optically active derivatives of phenylaminoacetic acid, A., 515.
 MacKenzie, J. T., influence of phosphorus on strength properties of cast-iron pipe, B., 674.
 McKeown, A. See Griffith, R. O.
 Mackeson, H., manufacture of beverages, (P.), B., 500.
 Mackey, B. See Krase, N. W.
 Mackey, J. C., Kaufman, J. S., and Van Rensselaer Lansingh, treatment of silk, (P.), B., 443.
 McKibbin, R. R. See Holcomb, R.
 Mackie, A. See Shoesmith, J. B.
 McKinley, C. W. See A. C. Spark Plug Co.
 McKinley, L. See Pearce, J. A.
 McKinney, D. S. See Seltz, H.
 MacKinney, G., effect of impurities on the consolute temperature of the system water-phenol, A., 230.
 MacKinney, H. W. See Baur, Emil.
 McKinney, P. V. See Miller, S. P.
 McKinney, R. S. See James, L. H.
 McKinnis, R. B., hypothetical combined pentose and so-called free pentose [in apples]; composition of pectin, A., 1016.
 Mackinnon, D. A., means for rendering harmless the exhaust gases of internal-combustion engines, (P.), B., 181.
 McKittrick, D. S. See Humphrey, C. W.
 McKune, F. B., and Open Hearth Combustion Co., open-hearth furnace, (P.), B., 128*, 759*.
 metallurgical furnace, (P.), B., 715.
 operation of open-hearth furnaces, (P.), B., 931.
 McLachlan, N. W. See Smith, W. S.
 McLachlan, T., analysis of starch sugar degradation products by selective fermentation, B., 940.
 McLachlan, T., and Middleton, A. W., sodium flame for polarimetric work, A., 39.
 MacLaren, F. B., and Braselton, C. H., [magnetic] separation of material, (P.), B., 272.

- McLaughlin, G. D., Blank, I. H., and Rockwell, G. E., re-use of salt in the curing of animal skins, B., 682.
- McLaughlin, G. D., Highberger, J. H., and Moore, E. K., chemistry of liming [hides], B., 681.
- McLaughlin, H. L. See McLaughlin, W. L.
- McLaughlin, H. M., and Brown, F. E., decomposition of potassium chlorate. III. Effect of pressure on the decomposition of potassium chlorate-manganese dioxide mixtures, A., 488.
- McLaughlin, W., and Knowles, H., treatment of wax surfaces [for electrolyte] with graphite, (P.), B., 416.
- McLaughlin, W. L., and McLaughlin, H. L., pulverising machine, (P.), B., 552.
- McLay, A. B. See McLennan, J. C.
- McLean, F. T. See Gilbert, B. E.
- McLean, H. C. See Joffe, J. S.
- Maclean, (Mrs.) I. S., isolation of a second sterol from yeast-fat, A., 329.
- medicinal products obtained from yeast, (P.), B., 797.
- Maclean, (Mrs.) I. S. See also Hume, E. M.
- McLean, M. A. See Bolckow, Vaughan & Co., Ltd.
- McLennan, J. C., the aurora and its spectrum, A., 1165.
- McLennan, J. C., and Durnford, A. M. I. A. W., Zeeman effect for spectrum of tantalum, A., 1295.
- McLennan, J. C., and Greenwood, G., decomposition of ammonia by high-speed electrons, A., 1197.
- McLennan, J. C., Ireton, H. J. C., and Samson, E. W., luminescence of solid nitrogen under cathode-ray bombardment, A., 1171.
- McLennan, J. C., and McLay, A. B., first spark spectrum of gold, Au II, A., 1167.
- structure of the first spark spectrum of silver, Ag II, A., 1167.
- McLennan, J. C., McLay, A. B., and Crawford, M. F., second spark spectrum of cadmium, Cd III, A., 1167.
- McLennan, J. C., McLeod, J. H., and Ruedy, R., Zeeman resolution of the oxygen spectral line at γ 5577 Å., the auroral green line, A., 1067.
- McLennan, J. C., Niven, C. D., and Wilhelm, J. O., electrical conductivity of arsenic and antimony at low temperatures, A., 1314.
- resistance of caesium, cobalt, and chromium at low temperatures, A., 1314.
- effect of cadmium as an impurity in lead on the conductivity of lead, A., 1315.
- McLennan, J. C., and Plummer, W. G., crystal structure of solid methane, A., 1176.
- McLennan, J. C., and Ruedy, R., nebular spectrum, A., 337.
- atomic spectral lines associated with the band fluorescence of alkali metals, A., 459.
- absorption in excited krypton and xenon and the spectra of the inert gas type I, A., 1167.
- McLennan, J. C., Ruedy, R., and Anderson, J. M., nitrogen afterglow, A., 456.
- McLennan, J. C., Ruedy, R., and Burton, A. C., absorption spectra of water and ice, with reference to the spectra of the major planets, A., 1171.
- McLennan, J. C., Ruedy, R., and Cohen, (Miss) E., magnetic properties of single crystals of zinc and cadmium, A., 351.
- McLennan, J. C., Ruedy, R., and Howlett, L., influence of argon on the spectrum of sulphur, A., 1167.
- McLennan, J. C., and Walerstein, I., fluorescence spectra in metallic vapours excited by the light of the mercury arc, A., 1304.
- McLeod, A. R. See Food Chillers, Ltd.
- MacLeod, D. B. See Farr, C. C.
- McLeod, J. H. See McLennan, J. C.
- MacLeod, J. J. R. See Simpson, W. W.
- MacMahon, J. D., and Mathieson Alkali Works, hypochlorite composition, (P.), B., 710.
- McMaster, L., and Ahmann, F. F., action of thionyl chloride on organic acids, A., 271.
- McMaster, P. D. See Elman, R.
- Macmenigall, W. H. See Hancock, J. S.
- McMichael, P., and Hydrocarbon Refining Process Co., Inc., refining of petroleum oils, (P.), B., 150, 221.
- refining of hydrocarbon gels, (P.), B., 595.
- McMillan, A., and Easton, W., electrometric titrations: chloramine-T as a titrating agent, A., 144.
- McMillen, E. L. See Theis, E. R.
- McMillin, H. R., application to meat and meat food products of a rapid-boiling short-digestion method for determination of protein, B., 767.
- McMinn, S. A., anti-corrosive paint for iron, steelwork, etc., (P.), B., 579.
- McMurtrey, J. E. See Moss, E. G.
- McNabb, W. M., comparison of two methods used in determination of phosphorus pentoxide as magnesium ammonium phosphate, A., 384.
- MacNair, W. A., Zeeman pattern of the hyperfine structure lines of the resonance line of mercury, A., 807.
- Zeeman effect of the fine structure components of mercury radiation λ 2536 Å., A., 1296.
- MacNair, W. A. See also Bills, C. E., and Ellett, A.
- McNally, J. G. See Whitby, G. S.
- McNally, W. D., and Rust, C. A., distribution of boric acid in human organs in six deaths due to boric acid poisoning, A., 1156.
- Macnaughtan, D. J., and Hothersall, A. W., hardness of electrodeposited nickel, B., 644.
- causes and prevention of pitting in electrodeposited nickel, B., 823.
- McNeil, C. P. See Rogers, F. M.
- McNicol, D., and British Oil & Cake Mills, Ltd., treatment of crude cottonseed oil, (P.), B., 530*.
- McNulty, (Miss) S. A. See Orndorff, W. R.
- McNutt, L. J., apparatus for making carbon and generating steam, (P.), B., 513.
- Macoun, J. M., determination of alcohol in solutions containing acetone, B., 254.
- McQuade, M. J., carbonisation of coal, (P.), B., 594.
- McQuaid, H. S., and Grasselli Chemical Co., production of barium silicofluoride, (P.), B., 13.
- McRae, F. W., and McRae Paint Products, Inc., paint or water-proofing material and its production, (P.), B., 903.
- McRae, F. W. See also Barber Asphalt Co.
- McRae, J. A., and Manske, R. H. F., alkylation of α -cyano- β -alkylacrylic esters and of α -phenyl- β -alkylacrylonitriles, A., 440.
- MacRae, T., making and delivering quantitative mixtures, (P.), B., 320.
- McRae Paint Products, Inc. See McRae, F. W.
- Maeri, V., determination of morphine in opium, B., 387.
- McRuer, W. G. See Russel, J. C.
- McTaggart, H. A., films of oil inside a small bubble of gas in water, A., 232.
- Macurevitch, J., crystalline compounds obtained by the action of aromatic amines on semicarbazide and its derivatives, A., 55*.
- McVay, T. N., effect of temperature on the optical properties of kaolinite, A., 971.
- McVay, T. N. See also Parmelee, C. W.
- McWherter, P. W. See Palmer, C. S.
- Macy, I. G. See Outhouse, J.
- Macy, R., application of interference refractometer to the measurement of the concentration of dilute solutions, A., 146.
- Maddock, S. J. See Trimble, H. C.
- Madelung, W., and Oberwegner, M., amino-substituted tetraphenylethylenes, benzpinacols, and benzpinacolins, A., 171.
- Madersbacher, N. See Brunner, K.
- Madgin, W. M., Peel, J. B., and Briscoe, H. V. A., temperature effects of mixing non-aqueous liquids, A., 21.
- cryoscopic evidence of compound formation in mixtures of organic liquids, A., 470.
- Madgin, W. M. See also Peel, J. B.
- Madinaveitia, A., and Gallego, M., plumbagin, A., 1376.
- Madsen, E. H., examination of ipecacuanha extracts, B., 546.
- pharmaceutical preparations of valerian, B., 623.
- Maeda, M., thyroid and tissue respiration, A., 1287.
- Maeda, T., X-ray study of magnesium oxychloride cement, B., 54.
- mechanism of setting and hardening of cement, B., 672.
- methods for obtaining high tensile strength of gypsum cement, B., 672.
- Maennchen, K. F. See I. G. Farbenind. A.-G.
- Maffei, G., quinazolines. I. Mechanism of the reaction between formaldehyde and *p*-substituted aromatic amines in presence of acids, A., 775.
- Maffei, G. See also Lepetit, R.
- Maffei, E. See Thomas, P.
- Magasanik, J. See Traube, J.
- Magee, H. E., and Glennie, A. E., effect of heat on milk. IV. Iodine content, A., 319.
- Magee, W. M. See Smits, A.
- Magendie, L., determination of morphine in Codex preparations, A., 1044.

- Magenta, *M. A.*, effect of chloralose on blood-sugar level, *A.*, 443.
effect of sodium fluoride on blood-sugar level, *A.*, 444.
effect of nickel and cobalt salts on insulin hypoglycæmia, *A.*, 554.
- Magidson, *O.*, closure of the fluorene ring in the di-*a*-naphthylmethane series, *A.*, 747*.
- Magidson, *O.* [with Fränkel, *J.*], preparation of hydrazine by Raschig's method, *A.*, 495.
- Magidson, *O.* [with Kalischevski, *L.*], nitration of chlorobenzene, *A.*, 626.
- Magidson, *O.* [with Posorovskaja, *E.*, and Seligsohn, *N.*], action of sodium peroxide on phenol; preparation of pyrocatechol and quinol, *A.*, 516.
- Magidson, *O.* [with Süsskind, *B.*], triphenylstibine sulphide, *A.*, 655.
- Magidson, *O.*, and Damaskina, *W.*, stability of the double linking in dioxanthylene, *A.*, 647.
- Magidson, *O.*, and Krol, *W.*, sodium ethylene thiosulphate, $\text{Na}_2\text{C}_2\text{H}_4\text{S}_2\text{O}_6$, *A.*, 617.
preparation of phenyl salicylate, *A.*, 637.
- Magidson, *O.*, and Menschikov, *G.*, quaternary pyridine bases, *A.*, 647*.
iodination of 2-aminopyridine, *A.*, 772.
- Magidson, *O.*, and Preobraschenski, *N.*, action of hydrogen peroxide on phenol and anisole, *A.*, 631.
- Magidson, *O.* See also Konovalova, *R. A.*
- Magill, *P. La F.*, Carlisle, *P. J.*, and Roessler & Hasslacher Chemical Co., manufacture of hydrogen cyanide from formamide, (*P.*), *B.*, 814.
- Magistris, *H.* See Grafe, *V.*
- Magita, *M.*, micro-identification of isomerides and homologues in mixtures. I. Three isomeric xylenes, *A.*, 1234.
- Magnavox Co. See Metcalf, *H. E.*
- Magnus, *A.*, theory of fusion and of specific heat of liquid metals, *A.*, 709.
dipolar nature of adsorbed gas molecules, *A.*, 1317.
- Magnus, *A.*, and Oppenheimer, *F.*, isothermal calorimetry at high temperatures, *A.*, 266.
- Magnus, *A.*, Sauter, *E.*, and Kratz, *H.*, wood charcoal as adsorbent for gases, *A.*, 1182.
- Magrini, *B.*, behaviour of chemical fertilisers and other organic and inorganic substances during the germination and the early stages of plant growth, *A.*, 562.
- Maguire, *J. F.*, causes of instability of varnishes on standing, *B.*, 23.
- Mahle, *Emil.* See Meisenheimer, *J.*
- Mahler, *Ernst*, Rothchild, *H. A.*, and Kimberly-Clark Co., preparation of stuff [size precipitant] for paper making, (*P.*), *B.*, 155.
- Mahler, *G. T.* See Bunce, *E. H.*
- Mahlkuch, *E.*, suction-gas plant, producing tar as a by-product, (*P.*), *B.*, 116.
- Mahn, *H.* See Abderhalden, *E.*
- Mahr, *H. F.* See Calcott, *W. S.*
- Mai, *J.*, tetraphosphorus triselenide and phosphorus thioselenides, *A.*, 1200.
- Maier, *C. G.* See Schuette, *C. N.*
- Maier, *L.* See Bachmann, *Wilhelm.*
- Maige, *A.*, formation and degradation of starch in vegetable cells, *A.*, 802.
- Maignen, *P. J. A.*, preparation of cellulose, (*P.*), *B.*, 638.
- Maignon, *F.*, and Knithakis, *E.*, variations of the p_{H} and the alkaline reserve of the blood of the fasting dog, *A.*, 442.
urinary excretion of ketonic substances by the fasting dog, *A.*, 442.
- Mailhe, *A.*, desulphurising petroleum and products derived therefrom, (*P.*), *B.*, 182.
- Mailhe, *A.*, and Renaudie, formation of hydrocarbons from propyl alcohol, *A.*, 268.
conversion of alcohols into petroleum spirit, *B.*, 117.
- Maimeri, *C.* See Lepetit, *R.*
- Main, *R. D.*, Nixon, *E. G.*, and Lamson-Paragon Supply Co., Ltd., production of colour compositions and their application in the printing industry; manufacture of "carbon papers" and typewriter ribbons, (*P.*), *B.*, 744.
- Mair, *B. J.* See Mehl, *R. F.*
- Maiser, *G. L.* See Wedekind, *E.*
- Maisin, *J. E.*, formation of sulphur trioxide under the action of α -particles, *A.*, 104.
action of α -particles on colloidal solutions of gold, *A.*, 949.
- Maisin, *J. A.*, action of an electric discharge on the gaseous mixture $\text{SO}_2 + \text{O}_2$, *A.*, 1342.
- Maitland, *H. T.*, and Sun Oil Co., refining of mineral oil, (*P.*), *B.*, 472.
- Maiuri, *G.*, and Bossini, *R. F.*, refrigerating apparatus of the absorption type, (*P.*), *B.*, 774.
- Maiwald, *K.*, determination of chlorophyll by Willstätter's method, *B.*, 421.
technique of pot experiments [with plants], *B.*, 536.
Wiessmann's method for determining the nutrient content of soils by pot experiments, *B.*, 764.
- Maizels, *M.* See Conybeare, *E. T.*, and Hampson, *A. C.*
- Majdel, *J.*, influence of ammonia on the results of the determination of magnesium by Schmitz' method, *A.*, 38.
modification of the Schneider-Finkener method for the determination of zinc, *A.*, 859.
- Majer, *V.*, boiling-up of thin juice, *B.*, 652.
- Majewska, *J.* See Lampe, *W.*
- Majewski, *F.*, the Neubauer method [for determining root-soluble nutrients in soils], *B.*, 279.
- Majima, *M.*, and Togino, *S.*, radiograph of a crystal having the face-centred cubic lattice, *A.*, 108.
radiograph of a crystal having the body-centred cubic lattice, *A.*, 349.
- Major, *R. H.*, and Weber, *C. J.*, possible increase of guanidino in blood in hypertension, *A.*, 321.
- Major, *R. T.*, and Fleck, *E. E.*, α , β -dialkylhydroxylamines, *A.*, 744.
- Major, *R. T.* See also Jones, *L. W.*
- Majrich, *A.*, preparation of trinitroresorcinol and its salts, *A.*, 517.
- Majumdar, *G. P.*, distribution of calcium oxalate crystals in plant tissues; their probable rôle in plant metabolism, *A.*, 1162.
- Majumdar, *J. N.* See Sircar, *A. C.*
- Majumdar, *K.*, spark spectrum of silver, *A.*, 99, 338.
spectrum of ionised sodium, *A.*, 338, 677.
- Majumdar, *K.*, and Toshniwal, *G. R.*, application of the irregular doublet law to complex spectra, *A.*, 680.
- Makio, *S.*, drying and storage of secondary battery plates in the charged state. I. Characteristics of plates dried in carbon dioxide in the charged condition, *B.*, 453.
- Maláč, *B.* See Novák, *V.*
- Malachowski, *R.* See Lityński, *J.*
- Malam, *J. E.*, "Rockwell" hardness test [for metals], *B.*, 715.
- Malan, *A. I.*, mineral metabolism. IX. Phosphorus partition of blood in anæmia of cattle and sheep, *A.*, 1048.
mineral metabolism. VIII. Comparison of phosphorus partition in the blood of calf foetus, sheep foetus, and lambs with corresponding maternal blood, *A.*, 1051.
- Malan, *A. I.*, and Green, *H. H.*, mineral metabolism. VII. The unknown phosphorus fraction of calf blood, *A.*, 1051.
- Malan, *A. I.*, Green, *H. H.*, and Du Toit, *P. J.*, mineral metabolism. V. Composition of bovine blood on phosphorus-deficient pasture, *A.*, 1051.
- Malaprade, *L.*, oxidation of polyhydric alcohols with periodic acid, *A.*, 269, 867*.
- Malbay, *R.*, apparatus for carbonising wood, (*P.*), *B.*, 44.
apparatus for carbonisation and distillation of wood, (*P.*), *B.*, 807*.
wood carbonising plant, (*P.*), *B.*, 883.
- Malbay, *R.* See also Barbet, *E. A.*
- Malenkovic, *B. R. V.*, preservation of wood, (*P.*), *B.*, 266, 525*.
- Maleville, *A.*, preparation of hydrogen and hydrogenation of hydrocarbons, (*P.*), *B.*, 292.
- Malfitano, *G.*, and Catoire, *M.*, micellar state of starch, *A.*, 1186.
- Malinowski, *A. E.*, motion of conducting electrons, *A.*, 568.
- Malinowski, *V. E.* See Filosofov, *M. S.*
- Maljarov, *K. L.*, determination of alkalis in sub-soil waters, *A.*, 979.
use of oxalic acid in microchemical analysis, *A.*, 980.
apparatus for micro-filtration, *A.*, 985.
- Malkin, *T.*, and Nierenstein, *M.*, cyanidin. I. Comparative investigation of cyanidin chloride and 3:5:7:3':4'-penta-hydroxyflavylium chloride, *A.*, 646.
- Malkowa-Janowski, (*Frau*). See Bobtelsky, *M.*
- Mallabar, *H. J.*, manufacture of cellulose acetate, (*P.*), *B.*, 85*.
- Mallabar, *H. J.*, and Non-Inflammable Film Co., Ltd., manufacture of composite glass, (*P.*), *B.*, 448.
manufacture of cellulose acetate, (*P.*), *B.*, 706.
- Mallabar, *H. J.* See also Non-Inflammable Film Co., Ltd.
- Malleis, *O. O.* See Sperr, *F. W.*, jun.

- Mallery, A. H., method of utilising residue [mineral] oils containing water, (P.), B., 884.
- Mallet, L., luminescence of water and carbon disulphide under the influence of γ -rays, A., 934.
- Mallinckrodt, E., jun., reactions of anæsthetic ethers with potassium hydroxide and with mercury, and the test for foreign odours, B., 35.
- Mallinckrodt-Haupt, A. von, fat metabolism of *Hyphomycetæ*. I. A., 447.
- Mallison, H., Kraemer-Sarnow method [for determining the softening point of pitch] and mercury poisoning, B., 661.
- Mallison, H., and Soltan, F., variation in consistency of tars with temperature, B., 355.
- Mallock, A., hardness of alloys, A., 698.
- photographic enlargement of small solid objects and the limitation of definition obtainable on gelatin plates, B., 731.
- Malm, C. J., and Eastman Kodak Co., manufacture of cellulose esters of organic acids, (P.), B., 121.
- Malm, C. J. See also Clarke, H. T.
- Malm, K. G. See Aktiebolaget Separator-Nobel.
- Malmbrikett Aktiebolaget, manufacture of shaped masses such as briquettes, (P.), B., 269.
- Malquori, G., system $\text{AlCl}_3\text{-KCl-HCl-H}_2\text{O}$ at 25° , A., 20.
- system $\text{Al(NO}_3)_3\text{-KNO}_3\text{-Fe(NO}_3)_3\text{-H}_2\text{O}$ at 25° , A., 20.
- system $\text{FeCl}_3\text{-AlCl}_3\text{-H}_2\text{O}$ at 25° , A., 20.
- systems $\text{Cd(NO}_3)_2\text{-HNO}_3\text{-H}_2\text{O}$; $\text{Zn(NO}_3)_2\text{-HNO}_3\text{-H}_2\text{O}$; $\text{Mg(NO}_3)_2\text{-HNO}_3\text{-H}_2\text{O}$ at 20° , A., 480.
- thermal dissociation of cadmium nitrate, A., 593, 711.
- influence of alkali nitrates on the solubility of lead nitrate. I., A., 700.
- hydrates of cadmium, zinc, and magnesium nitrates, A., 721.
- system $\text{AlCl}_3\text{-HCl-H}_2\text{O}$ between 0° and 80° , A., 956.
- system $\text{KCl-HCl-H}_2\text{O}$ between 0° and 80° , A., 956.
- system $\text{AlCl}_3\text{-KCl-H}_2\text{O}$ between 0° and 80° , A., 957.
- systems $\text{Pb(NO}_3)_2\text{-LiNO}_3\text{-H}_2\text{O}$ and $\text{Pb(NO}_3)_2\text{-CsNO}_3\text{-H}_2\text{O}$, A., 957.
- system $\text{KNO}_3\text{-HNO}_3\text{-H}_2\text{O}$, A., 1328.
- system $\text{KNO}_3\text{-Al(NO}_3)_3\text{-H}_2\text{O}$, A., 1329.
- system $\text{AlCl}_3\text{-KCl-HCl-H}_2\text{O}$ between 0° and 80° , A., 1329.
- the system $\text{Al}_2\text{O}_3\text{-SiO}_2$, and its importance in connexion with ceramic materials, B., 816.
- Malquori, G. See also Parravano, N.
- Malsch, J., determination of dielectric constants in intense electric fields, A., 220.
- Malurkar, S. L., are spectrum of antimony, A., 211.
- Malvezin, P., sugar: alcohol ratio and the stability of sweet wines, B., 424.
- Maly, H., process and apparatus for dressing webs of fabric, (P.), B., 854.
- Malyshev, B., relation between colour and magnetism of ions, A., 683.
- Manchester Oxide Co., Ltd., Clayton, R. H., and Scholefield, F., oxidation process in dyeing or printing of textiles [with aniline black], (P.), B., 855.
- Manchot, W., univalent iron, A., 35.
- univalent iron, cobalt, and nickel, A., 1344.
- Manchot, W., and Gall, H., univalent iron, nickel, and cobalt. III. Reduction process in the case of iron, A., 35.
- univalent manganese. II., A., 722.
- [nitric oxide and carbon monoxide compounds of so-called univalent iron and nickel], A., 1202.
- Manchot, W., and Lehmann, G., action of hydrogen peroxide on ferrous salts, A., 261.
- Mancke, R., and Serbescu, P., fat metabolism. IX. Formation of acetone substances, A., 198.
- Mand, R., electrolytic gas apparatus, A., 609.
- production of sodium hydroxide, chlorine or hydrochloric acid, and ammonium chloride in gas-works or coke-oven plants, (P.), B., 123.
- Mandel, J. A., and Niederl, J. B., oxidative synthesis of a dialdehydic carbohydrate, $\text{C}_{15}\text{H}_{25}\text{O}_{18}$, from dextrose, A., 274.
- Mandel-Borgmannová, A. See Bureš, E.
- Mandelstam, L. See Landsberg, G.
- Mandry, G. See Küster, W.
- Maney, A. J. See Plagge, H. H.
- Manfred, O., manufacture of albumin-containing plastic [horn-like] masses having elastic properties, (P.), B., 829.
- Manfred, O., and Obrist, J., plasticity relationships in the technology of plastic materials and products, B., 733.
- Manganot, G., significance of the red crystals appearing, on treatment with cresol-blue, in the cells of certain algæ, A., 336.
- Mangels, C. E., relation of water-absorbing capacity of flour to protein content, baking quality, and loaf-weight, B., 282.
- Mangels, C. E., and Stoa, T. E., effect of stage of maturity on composition and baking quality of marquis wheat, B., 909.
- Mangini, A. See Stratta, R.
- Mangold, E., and Schmitt-Krahmer, C., nitrogen distribution in the paunch of ruminants during feeding and starvation and its relationship to paunch infusoria, A., 199.
- Manicatide, M., Damboviceanu, A., and Rosiann, A., changes in catalase, lipase, and amylase content of blood of infants in digestive disturbances, A., 322.
- Manieke, P., and Poethke, W., determination of potassium iodide in tincture of iodine, B., 464.
- Manin, Y. See Levaditi, C.
- Manjean, (Mlle.) S. See Lescœur, L.
- Manley, J. J., silvering of glass plates for optical instruments, A., 39.
- union of helium with mercury, A., 256.
- capillary action of mercury in the absence of gas-grown skins, A., 832.
- Mann, C. A. See McKee, J. R.
- Mann, F. C. See Bollman, J. L.
- Mann, F. G., complex salts of nickel with aliphatic diamines, A., 157.
- complex salts of bivalent platinum with $\alpha\beta\gamma$ -triaminopropane, A., 622.
- complex salts of β -methyltrimethylenediamine with bivalent platinum, A., 745.
- Mann, L. See Gwyer, A. G. C.
- Mann, M. D., jun., and Hunt, S. B., treatment of gases with liquids, (P.), B., 249.
- Mannes, L. D., and Godowsky, L., jun., production of a colour photograph, (P.), B., 317.
- Mannesmannröhren-Werke, alkali or alkaline-earth fluxes for deoxidation of iron and steel, (P.), B., 788.
- Mannheimer, M. See Stewart, G. W.
- Mannich, C., manufacture of alkyl derivatives of cyclotrimethylenearylpyrazolones, (P.), B., 211*.
- manufacture of dicyclic derivatives of pentamethylene; [1-aryl-3:4-trimethylene-5-pyrazolone], (P.), B., 849*.
- Mannich, C., and Gollasch, T., bromination of tertiary β -ketonic bases and synthesis of 3-hydroxy-1-methylpyrrolidine, A., 427.
- Mannich, C., and Hof, W., aliphatic β -aminoketones and related amino-alcohols, A., 299.
- Mannich, C., and Honig, P., 2- ω -piperidinomethylcyclohexanone and related compounds, A., 300.
- Mannich, C., and Schmitt, Frida, ether corresponding with isosafrole bromohydrin, A., 635.
- synthesis of amino-alcohols from isosafrole, isoeugenol, and anethole, A., 636.
- Mannich, C., and Schütz, M., synthesis of unsaturated γ -ketonic amines and their reduction products, A., 301.
- Manning, A. B., King, J. G., and Sinnatt, F. S., unsaturated hydrocarbons in the gases from the carbonisation of coal, B., 217.
- Manning, F. W., continuous countercurrent treatment [filtration] of liquids and solids, (P.), B., 879.
- Manning, P. D. V. See McKee, R. H.
- Manos, E., [non-oxidisable] alloys, (P.), B., 820.
- Mansfeld A.-G. für Bergbau & Hüttenbetrieb. See Busse, O.
- Manske, R. H. F., [preparation of] *m*-nitrophenol, A., 631.
- Manske, R. H. F. See also Lapworth, A., and McRae, J. A.
- Mansuri, Q. A., equilibrium diagram of the system thallium-phosphorus, A., 129.
- equilibrium diagram of the system antimony-arsenic, A., 1094.
- Manteifel, A. Y. See Shaposhnikov, V.
- Mantel, S., thermal disintegration of gaseous hydrocarbons, B., 660.
- Mantel, S. See also Wasilewski, L.
- Mantell, C. L. See Fink, C. G.
- Mantius, O., apparatus for concentration of acids, (P.), B., 157.
- Mantle Engineering Co. See Munford, T. W.
- Manuel, F. R. See De Laporte, A. V.
- Manuel, W. A. See Carpenter, C. B.
- Manufactures de Machines Auxiliares pour l'Électricité et l'Industrie, [apparatus for] impregnating and rendering rigid pieces of paper or fabric of any form, (P.), B., 229.

- Manus, E. See Reissert, A.
- Maracineanu, (Mile.) S., phenomena, similar to those of radioactive bodies, shown by metals, A., 455.
- Maranis, A. D., seeds of the stone-pine (*Pinus pinea*, L.), A., 803.
- Marcelet, H., presence of a new fatty acid in a fish oil, A., 990. examination in Wood's light of some varieties of cod-liver oils, B., 201.
- March, A., thermodynamics of dispersed systems, A., 235. photo-sensitivity of silver bromide and the corpuscular theory of light, A., 492. thermodynamic theory of the colloidal state, A., 835.
- March, H. W., and Weaver, W., diffusion problem for a solid in contact with a stirred liquid, A., 829.
- Marchandani, T. J., and Simonsen, J. L., isoerucic acid, A., 46*.
- Marchionini, A. See Schade, H.
- Marchlewski, L. See Kwieciński, L.
- Marclille, R., accidental green coloration of olive oils, B., 99. reaction of [edible] oils to ultra-violet light, B., 530.
- Marconi's Wireless Telegraph Co., Ltd., and Ranger, R. H., heat-sensitive recording papers and the like suitable for use in picture and the like telegraphy, (P.), B., 717.
- Marcoite, E., and Breuille, H., apparatus for distilling lignite, peat, coal, etc., (P.), B., 738.
- Marcovitch, S., relative toxicities of arsenicals and fluorine compounds to various organisms, B., 626. lime and sodium fluosilicate [in insecticides], B., 830. toxicity of fluorine compounds, B., 926.
- Marcucci, A. See Tarulli, G.
- Marcusson, J., lignin and oxycellulose theories [of coal formation], B., 76.
- Marcy, F. See Cambier, R.
- Marden, J. W., Conley, J. E., and Westinghouse Lamp Co., activation of electron-emission material [tungsten filaments], (P.), B., 454.
- Marden, J. W., Rich, M. N., and Westinghouse Lamp Co., Mischmetal wire, (P.), B., 128*.
- Marden, J. W., Thomas, T. P., Conley, J. E., and Westinghouse Lamp Co., deposition of thorium [on filaments] from its vaporisable compounds, (P.), B., 645.
- Marden, J. W., and Westinghouse Lamp Co., metallurgical method [preparation of thorium, etc.], (P.), B., 58. production of rare metals and their alloys, (P.), B., 198. production of rare-metal powders, (P.), B., 305. X-ray tube, (P.), B., 454. preparation of [anhydrous] metal halides, (P.), B., 568. purification of metal [uranium or thorium] powder, (P.), B., 575. preparation of electron-emission material [thorium-molybdenum alloy], (P.), B., 612.
- Marden, J. W. See also Rentschler, H. C., and Westinghouse Lamp Co.
- Mardles, E. W. J., autoxidation during slow combustion, A., 597. methods of testing suitability of paints, varnishes, and lacquers for aeronautical purposes, B., 678.
- Mardles, E. W. J. See also Bennett, J. A. J., and Gill, F.
- Marek, I., determination of sulphur in organic substances, A., 82. elementary organic analysis for carbon and hydrogen without the use of catalysts, A., 82, 1149*.
- Marek, I. [with Krajčinovič, M., and Zaljesov, G.], determination of nitrogen by Lumas' method, A., 1346.
- Marenzi, A. D. See Di Benedetto, E.
- Margaillan, L., jaboty kernel oil, B., 530.
- Margaillan, L., Dupuis, A., and Rosello, J., praxeaxy and owala kernels and their oils, B., 529.
- Margetson, O. See Suffern, F. S.
- Margosches, B. M., and Fuchs, K., determination of the iodine value [of oils] in aqueous emulsions, B., 23.
- Margosches, B. M., Fuchs, K., and Krakowetz, B., action of solutions of potassium iodate and hydrogen iodide on fats, B., 306.
- Mariam, T. See I. G. Farbenind. A.-G.
- Maricq, L., volumetric determination of mercury, A., 981.
- Maricq, L., and Beckers, M., methods in use at the International Bureau of Physico-Chemical Standards. II. Calorimetric precision measurements, A., 368.
- Marie, C., and Buffat, A., action of benzenesulphonic and naphthalenesulphonic acids on gelatin, A., 17.
- Marie, C., and Claudel, M. L., influence of p_H on the electrolytic deposition of copper in presence of gelatin, A., 969.
- Marie, C., and Jacquet, P., hygroscopic and catalytic properties of gelatinated electrolytic copper, A., 850.
- Marie, C., and Lejeune, G., [controlled] electrolytic oxidation of organic substances, A., 1102.
- Marikovsky, Z. von, and Lindner, E., "alkalinity" of milk and its electrolytic determination, B., 346.
- Marinesco, N. S., adsorption on dissolved molecules. II., A., 119. mol. wt. and association of chlorophyll in solution, A., 241. dielectric properties and structure of the hydrophilic colloids, A., 1321.
- Maring, P., are spectrum of iron under reduced pressure over the range 2270—3900 Å., A., 1294.
- Marino, Q., detinning processes, (P.), B., 645.
- Maris, H. B., theory of the upper atmosphere and meteors, A., 40.
- Marjanović, V. See Njegovan, V.
- Marjin, V. See Krestinski, V.
- Mark, H., and Mehner, H., structure of tetraphenylsilicane, SiPh₄, A., 360.
- Mark, H., and Noethling, W., structure of some methane derivatives, A., 350.
- Mark, H., and Schocken, K., azimuthal distribution of X-rays scattered in an ideal gas, A., 101.
- Mark, H., and Susich, G. von, regular micellar structure of caoutchouc, A., 1186.
- Mark, H., and Weissenberg, K., pyro- and piezo-electricity in pentaerythritol, A., 351. structure of pentaerythritol, A., 351.
- Mark, H., and Wierl, R., relative intensities of the Stark effect components of the Balmer H β and γ H lines, A., 1168.
- Mark, H. See also Brill, R., Gottfried, C., and Meyer, K. H.
- Mark, R. E., and Kohl-Egger, E., potassium and calcium in serum after ingestion of urea, A., 322.
- Marke, E., effect of cold-rolling and annealing at different temperatures on the tensile properties and structure of high-grade soft iron sheets, B., 860.
- Markert, L. See Freudenberg, K.
- Markley, K. S., and Schreiber, W. T., *Helianthus argophyllus*; commercial possibilities as indicated by its composition, B., 636.
- Markowitz, J. See Cathcart, E. P.
- Marks, A. See United States Metals Refining Co.
- Marks, B. M., and Howard, H. C., jun., catalytic decomposition of oleic acid, A., 968.
- Marks, H. P. See Bodo, R.
- Markwell, W. A. N., and Walker, L. J., determination of eugenol, B., 502.
- Marle, M. van. See Gibbons Bros., Ltd.
- Marley, S. P., Gruse, W. A., and Gulf Refining Co., [non-knocking] fuel composition, (P.), B., 115.
- Marling, P. E., causes of livering in paints, enamels, and printing inks, B., 23.
- Marotta, D., and Alessandrini, M. E., determination of vaseline oil in coffee, B., 314.
- Marquard, F. F., preparing flue dust for smelting in blast furnaces, (P.), B., 756.
- Marqueyrol, M., products of conversion of amyl alcohol in BAM powders, B., 656.
- Marqueyrol, M., and Toquet, L., "potassium chlorate" method for determining manganese. IV., V., and VI., A., 38.
- Marqueyrol, M. See also Koehler, A.
- Marrian, G. F., effect of inanition and vitamin-B deficiency on the adrenal glands of the pigeon, A., 800.
- Marrian, G. F., Baker, L. C., Drummond, J. C., and Woollard, H., physiological rôle of vitamin-B. V. Relation of inanition to vitamin-B deficiency in pigeons, A., 91.
- Marriott, R. H., depilation of skins by means of alkaline solutions, B., 580, 794, 827.
- Marris, N. A. See Denham, H. G.
- Marschall, C. H., manufacture of perylene, (P.), B., 808*.
- Marschall, F. See Daimler, K.
- Marschew, F., preservation of milk samples for fat determination, B., 384.
- Marschner, W. See Schönberg, A.
- Marsden, F. See Meldrums, Ltd.
- Marsh, F. W., laboratory apparatus for the measurement of carbon dioxide evolved from soils, B., 458.
- Marsh, J. E., use of hydrogen peroxide for iodine and other substitutions in aromatic compounds, A., 168.
- Marsh, J. R. C., and Bard, F. N., steel manufacture, (P.), B., 898.
- Marsh, J. T. See Tootal Broadhurst Lee Co., Ltd.
- Marsh, M. C. See Lowry, T. M.

- Marsh, T. A., and Green Engineering Co., furnace, (P.), B., 175.
- Marshall, A. L., hydrogen peroxide formation photo-sensitised by mercury vapour, A., 30.
- Marshall, J., Bergeim, F. H., and Du Pont de Nemours & Co., E. I., nitration process, (P.), B., 390.
- Marshall, J. R. See Adams, R.
- Marshall, M. J. See Wright, R. H.
- Marshall, P. G. See Brain, R. T., and Kay, H. D.
- Marshall, S. See Gregory, H.
- Marshall, S. M., and Orr, A. P., photosynthesis of diatom cultures in the sea, A., 390.
- Marshall, W., preparation of oxyhæmoglobin crystals from ox blood, A., 661.
- Marstin Adhesive Co. See Lanzendorfer, G.
- Marston, H. R. See Robertson, T. B.
- Marszak, I. See Ruggli, P.
- Martin, F., insolubility of adrenaline in oils, B., 172.
- Martin, F. See also Timmermans, J.
- Martin, F. J., loss involved by igniting soil fractions during mechanical analysis of soils, B., 311.
- Martin, F. J., and Doyno, H. C., laterite and lateritic soils in Sierra Leone, B., 28.
- Martin, G., manufacture of Portland cement in a rotary kiln, (P.), B., 194.
- utilisation of waste heat for steam raising, B., 801.
- Martin, H. See Burgess, A. H., and Goodwin, W.
- Martin, H. S., concentration of mixed sulphide ores, (P.), B., 716.
- Martin, J. H. See Bueckner, G. B.
- Martin, J. P. See Lee, H. A.
- Martin, L. C., ultra-violet refractometry, A., 388.
- Martin, O. V., and Martin-Colvin Co., production of salts from brines and solutions, (P.), B., 230.
- Martin, R., composition of sheep's milk, B., 872.
- Martin, R. See also British Celanese, Ltd.
- Martin, R. B., and Minerals Separation North American Corporation, production of oxidised products [from hydrocarbons], (P.), B., 702.
- Martin, R. E., selenium cell, A., 609.
- Martin, R. H., and Norton Co., manufacture of [refractory coatings for] silicon carbide articles, (P.), B., 158.
- Martin, S. C., air-jet [for liquids], B., 71.
- Martin, S. H., hydrogen-ion concentration of plant tissues. III. *Helianthus annuus*. IV. Buffer of sunflower hypocotyl, A., 92.
- hydrogen-ion concentration of plant tissues. VII. Buffers of sunflower stem and root. VIII. Buffers of bean stem and root, A., 1406.
- Martin, T. J., and Helfrecht, A. J., potentials of manganese dioxides in electrolytes of various hydrogen-ion concentrations, A., 596.
- Martin, T. L., decomposition studies of lucerne and sweet clover roots and straw, B., 63.
- Martin, W. H., wave-length shifts in scattered light, A., 1170.
- Martin-Colvin Co. See Martin, O. V.
- Martinescu, C., preparation of colloidal metal solutions, (P.), B., 784.
- Martinez, M., colour photography, (P.), B., 108.
- manufacture of photo-sensitive surfaces [for use in colour photography], (P.), B., 108.
- Martini, A., sensitive microchemical reactions of cadmium salts, A., 386.
- microchemical reactions [with hexamethylenetetramine sulphate and with piperazine], A., 387.
- metal complexes with pyrocatechol and their use in microchemical analysis, A., 387.
- Martino, G., different phosphagen content of rapidly contractile and slowly contractile striated muscle, A., 546.
- Martinov, W., and Berckemeyer, H., manufacture of abrasives, (P.), B., 606.
- Martinson, E. See Aschmarin, P.
- Martley, F. C., use of blood-grouping reactions in forensic investigations, A., 191.
- Martus, M. L., caustic soda primary battery, B., 452.
- Martus, M. L., and Becker, E. H., primary cell, (P.), B., 612.
- Marty, A., hydrogenation of ethers, A., 990.
- Marui, E., chemical constitution and pungency, A., 1015.
- Marum, E. See Goldschmidt, H.
- Maruyama, S., and Higasi, T., synthesis of butane- β -diol, its nature and odour, A., 1212.
- Maruyama, S. See also Higasi, T.
- Maruyama, T. See Suzuki, B.
- Marvel, C. S., Blomquist, A. T., and Vaughn, L. E., *n*-butyl ether as solvent for the Grignard reagent, A., 1354.
- Marvel, C. S., and Calvery, H. O., [preparation of] trimethylene chlorohydrin, A., 615.
- Marvel, C. S., and Hager, F. D., [preparation of] ethyl *n*-butyl-acetoacetate, A., 394.
- Marvel, C. S., and Hansen, N. A., [preparation of] benzhydrol, A., 634.
- Marvel, C. S., and Sperry, W. N., [preparation of] benzophenone, A., 642.
- Marvel, C. S. See also Bateman, D. E., Gauerke, C. G., Hsueh, C.-M., Merchant, R., Rossander, S. S., and Salzberg, P. L.
- Marvellum Co. See Bracewell, R. S.
- Marwedel, J. E., Looser, J., and Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., purification of barium carbonate, (P.), B., 604f.
- Marx, E., and Kappler, P., measurement of displacements of negative carriers in flames, A., 683.
- Marx, R., drying of paper, board, pulp, etc., (P.), B., 85.
- Maryan, C. C., and General Electric Co., flux for welding cast iron, (P.), B., 715.
- Maschinenfabrik Beth. Akt.-Ges., bag filters, (P.), B., 353.
- Maschinenfabrik Elite Akt.-Ges., manufacture of soap flakes, (P.), B., 492.
- Maschinenfabrik Esslingen, production of soft workable grey iron, (P.), B., 234.
- Maschinenfabrik Fr. Gröppel, C. Lührig's Nachfolger. See Gröppel, K.
- Maschinenfabrik Oerlikon, improvement of fused material, especially cast iron, (P.), B., 820.
- Maschinenfabrik Turner Akt.-Ges., [conveyor for] treating hides, skins, and leathers, (P.), B., 206.
- Maschkin, A. N., nitration of glycerin, B., 588.
- Masciadri, L. See Charrier, G.
- Mashino, M., purification of soya-bean protein, A., 436.
- Mashino, M., and Nishimura, S., nitrogen distribution of soya-bean protein, A., 436.
- Mashino, M., and Shishido, T., decomposition of soya-bean protein. V. Decomposition of soya-bean protein by sulphuric acid. VI. Decomposition of soya-bean protein by organic acids. VII. Decomposition by Japanese acid clay, A., 435.
- Mashkilleison, E., action of carbon monoxide on the nickel catalyst in hydrogenation of fats, B., 901.
- Masima, M., and Sachs, G., mechanical properties of brass crystals, A., 1080.
- Masing, G., alloys of beryllium with copper, nickel, cobalt, and iron, B., 160.
- age-hardening of alloys and new age-hardening phenomena in iron, B., 897.
- Masing, G., and Haase, C., reversed segregation [in mixed-crystal alloys]. II., B., 372.
- manufacture of copper castings with a high electrical conductivity, B., 861.
- Masing, G., and Koch, L., duralumin change in iron-carbon alloys, B., 369.
- Masiyama, Y. See Kaya, S.
- Maskell, E. J., vegetable assimilation and respiration. XVII. Diurnal rhythm of assimilation in leaves at "limiting" concentrations of carbon dioxide. XVIII. Relation between stomatal opening and assimilation, A., 557.
- Maskell, E. J. See also Eden, T., and Mason, T. G.
- Maskinfabr. "Ramije," apparatus for rendering liquids homogeneous, (P.), B., 41.
- Maslow, H. L. See Shelling, D. H.
- Mason, A. J., drying of agricultural produce, (P.), B., 279.
- drying of curing hay or like crops, (P.), B., 619.
- Mason, C. W. See Chamot, E. M.
- Mason, E. D. See Redfield, A. C.
- Mason, F. A., the catechin problem, A., 1256.
- Mason, F. A. See also Dyson, G. M.
- Mason, F. B., viscosity tester for oils, (P.), B., 249.
- Mason, H. M., and Walsh, G., titration of dilute sulphite solutions with standard iodine solutions, A., 497.
- oxidation of sulphites by air, A., 497.
- Mason, J. See Cooper, E. A.
- Mason, T. G., and Maskell, E. J., transport of carbohydrates in the cotton plant. I. Diurnal variation in the carbohydrates of leaf, bark, and wood, and the effects of ringing, A., 559.

- Mason, *T. G.*, and Maskell, *E. J.*, transport of carbohydrates in the cotton plant. II. Factors determining the rate and direction of movement of sugars, A., 1061.
- Mason, *W. H.*, and Mason Fibre Co., manufacture of hard, grainless fibre products, (P.), B., 329.
- manufacture of structural insulating boards of exploded lignocellulose fibre, (P.), B., 330.
- Mason Fibre Co. See Mason, *W. H.*
- Masson, *H. J.*, and Hamilton, *W. F.*, auto-ignition temperatures, B., 42.
- auto-ignition temperatures. II. Pure compounds, B., 699.
- Massong, *K.* See Küster, *W.*
- Massy, *R.*, and Cazaux, *P.*, composition of the thermal waters from Barèges, A., 611.
- Masters, *E.*, and Goddard, *A. E.*, apparatus for the determination of viscosity under different conditions, and the errors induced by changes of velocity of the moving liquid, surface tension, and displacement caused by the air, A., 501.
- Masters, *W. C.* See Krivibok, *V. N.*
- Masuda, *S.*, constituents of the fibres of Japanese hemp-palm and sponge-gourd, B., 184.
- Masuda, *Y.* See Suzuki, *B.*
- Masumizu, *Y.*, cetacea. XXXIII. Glycogen content of the liver, A., 84.
- Masumizu, *Y.* See also Ichimi, *T.*
- Masumoto, *H.* See Honda, *K.*
- Matakas, *F.* See Zondek, *S. G.*
- Matalski, *V.* See Alexiev, *D.*
- Matchett, *J. R.* See Nelson, *R. E.*
- Matejak, *E.* See Grischkevitch-Trochimovski, *E.*
- Mather & Platt, Ltd. See Barclay, *S. F.*
- Mathers, *F. C.*, and Turner, *H. L.*, electrodeposition of tellurium, A., 850.
- Mathers, *F. C.* See also Ray, *K. W.*
- Mathesius, *H.*, alloys of iron [steels] with a low percentage of titanium, B., 607.
- Mathesius, *W.*, and Neufeld, *M.*, alloys for bearings, (P.), B., 373.
- Matheson, *G. L.* See Cuthbertson, *A. C.*
- Matheson, *H. W.*, Blaikie, *K. G.*, and Canadian Electro Products Co., manufacture of lactic acid esters, (P.), B., 46*.
- manufacture of [α]-hydroxy-acid esters, (P.), B., 740*.
- Matheson, *H. W.*, and Canadian Electro Products Co., Ltd., manufacture of [phenol-acetaldehyde] condensation products, (P.), B., 131.
- production of a composition for use in the manufacture of, or for use as, varnishes, etc., (P.), B., 164.
- process of making acetic acid, (P.), B., 666*.
- Matheson, *H. W.* See also Canadian Electro Products Co., Ltd.
- Mathews, (*Miss*) *I. M.*, absorption spectrum of caesium, A., 1295.
- Mathews, *J. H.* See Williams, *J. W.*
- Mathewson, *C. H.*, and Phillips, *A. J.*, twinning in beryllium, magnesium, zinc, and cadmium, A., 694.
- Mathias, *E.*, Crommelin, *C. A.*, and Watts, *H. G.*, rectilinear diameter of ethylene, A., 108, 574.
- Mathieson Alkali Works. See Evans, *G. S.*, Goodwin, *C. J.*, MacMahon, *J. D.*, Mauran, *M.*, and Taylor, *M. C.*
- Mathison, *F. C.*, and Redfield, *C. L.*, bonding metal, (P.), B., 676.
- Mathur, *K. G.*, and Bhatnagar, *S. S.*, fluorescence and photochemical change, A., 1306.
- Mathur, *K. G.*, Gupta, *R. S.*, and Bhatnagar, *S. S.*, photochemical reactions. I. Effect of the dielectric constant of the medium on the velocity coefficient, A., 492.
- Mathur, *K. N.* See Bhatnagar, *S. S.*
- Mathur, *R. N.* See Bhatnagar, *S. S.*
- Mathur, *S. B. L.* See Mohammad, *W.*
- Matignon, *C.*, and Calvet, *J.*, chemical properties [corrosion] of pure aluminium, A., 251.
- Matlack, *M. B.*, colouring matter of citrus juices, A., 765.
- Matlock, *C.*, and Monroe-Louisiana Carbon Co., apparatus for producing carbon, (P.), B., 805.
- Matossi, *F.*, absorption of plane-polarised infra-red radiation by calcspar, A., 813.
- Matossi, *F.*, and Dane, (*Frl.*) *F.*, reflexion, dispersion, and absorption of calcite in the neighbourhood of 7μ , A., 352.
- Matossi, *F.* See also Schaefer, *C.*
- Matschigin, *A. A.*, and Korzuchina, *T.*, determination of boric acid in glass, B., 91.
- Matsubara, *S.*, production of sour lacto-drinkables, (P.), B., 138.
- Matsuda, *T.*, equilibrium diagram of the copper-rich side of the copper-tin system, A., 710.
- Matsuda, *T.*, quenching and tempering of brass, bronze, and "aluminium bronze," B., 371.
- Matsuda, *T.* See also Atsuki, *K.*
- Matsui, *M.*, causticisation of sodium carbonate by ferric oxide. VIII. Thermal decomposition of sodium carbonate in presence of ferric oxide and some empirical equations for the decomposition pressure, A., 243.
- Matsui, *M.*, and Asai, *M.*, comparison of different methods of electrometric acidimetry and alkalimetry, A., 262.
- use of A.C. galvanometers for conductometric titrations, and the determination of fixed ammonia, A., 262.
- Matsui, *M.*, Fukushima, *S.*, and Nakada, *S.*, dissociation pressure of sodium sulphate decahydrate. II., A., 242.
- Matsui, *M.*, and Hayashi, *K.*, causticisation of sodium carbonate by ferric oxide. X. Thermal change of a mixture of sodium carbonate and ferric oxide in an atmosphere of carbon dioxide and the use of Nernst's micro-torsion balance, A., 243.
- Matsui, *M.*, Nakata, *S.*, Akiyama, *K.*, and Bito, *K.*, causticisation of sodium carbonate by ferric oxide. XI. Heat of dissolution of sodium carbonate, A., 711.
- Matsumoto, *H.* See Sato, *M.*
- Matsumoto, *K.*, morning-glory (asagao) oil. I. Properties of the oil, B., 202.
- Matsunami, *N.* See Komatsu, *S.*
- Matsuura, *M.*, cetacea. XXXVII. Reaction between alcoholic extracts of heart and luteal sera, A., 85.
- Matsuyama, *Y.*, electrical resistance of pure molten metals, A., 1083.
- volume change of manganese during solidification, A., 1083.
- equilibrium diagram of the copper-silicon system, A., 1094.
- equilibrium diagram of the aluminium-calcium system, A., 1095.
- Matter, *O.*, [granulation of] explosives, (P.), B., 800.
- Matthes, *H.*, and Brause, *G.*, composition of commercial plant lecithin, B., 388.
- differentiation of animal and plant lecithins, B., 388.
- Matthes, *H.*, and Schütz, *P.*, seeds of *Nerium oleander*, L., A., 335.
- volumetric determination of aluminium in pharmaceutical preparations, B., 501.
- Matthews, *D. L.*, temperature and salinity observations in the Gulf of Aden, A., 147.
- Matthews, *E.* See Gibson, *C. S.*
- Matthews, *M. A.* See Barnett, *E. de B.*
- Matthews, *W. C.*, impregnation of [moulded] leather with wax, etc., (P.), B., 167.
- Matthies, *O.* See I. G. Farbenind. A.-G.
- Matti, *H.*, production of aqueous emulsions of bituminous material, (P.), B., 405.
- Mattice, *M. R.* See Osanto, *M.*
- Mattick, *A. T. R.* See Davies, *W. L.*
- Mattick, *E. C. V.*, composition of milk of cows receiving cod-liver oil, A., 319.
- Mattick, *W. L.*, and Buchwald, *K.*, effect of radiation on blood-cholesterol in malignant disease, A., 441.
- Mattill, *H. A.*, oxidative destruction of vitamin-A and -E and the protective action of certain vegetable oils, A., 557.
- Mattingley, *N. B.*, and Rea, *A.*, reinforced [laminated] glass, (P.), B., 895.
- Matson, *S.*, electrokinetic and chemical behaviour of aluminosilicates, A., 584.
- cataphoresis and the electrical neutralisation of colloidal material, A., 1323.
- action of neutral salts on acid soils, with reference to aluminium and iron, B., 537.
- calcium carbonate-soil equilibrium and the lime requirement, B., 618.
- Matukawa, *K.* See Nishikawa, *S.*
- Matuyama, *Y.*, volume change in certain type metals during solidification, B., 371.
- Matzko, *S. N.* See Lavrov, *B. A.*
- Maue, *G.*, indican in urine investigations, A., 914.
- Mauerhofer, *H.*, behaviour of the blood-sugar in diabetes after administration of various carbohydrate carriers *per os*, with and without insulin, A., 321.
- Mauersberger, *E. A.*, manufacture of theobromine, B., 210.
- Mauguin, *C.*, study of micas (fluoride-free) by means of X-rays, A., 463.
- study of chlorites by means of X-rays, A., 822.
- X-rays do not always give the true structure of crystals, A., 1077.

- Mauguin, C., and Graber, L., X-ray study of fluoride micas, A., 611.
- Mauler, C., ascertaining the degree of absolute or relative resistance to rusting shown by iron, steel, or iron alloys, (P.), B., 608.
- Maume, L., and Dulac, J., minimum toxicity of a mixture of two salts with respect to plants, A., 334.
- positive, non-, and negative antagonism of binary mixtures of electrolytes [in their toxic action towards plants], A., 1406.
- correlation between positive antagonism and absorption by plants, A., 1406.
- Mauran, M., and Mathieson Alkali Works, Inc., heat exchanger, (P.), B., 627.
- Maurel, H. F., preparation of a fuel product, (P.), B., 804.
- Maurer, E., calculation of the carbon consumed in direct reduction [of the iron ore] in the blast furnace, B., 126.
- Maurer, E., and Duerue, H., iodine as a biological element. XII. Iodine content of the normal animal. XIII. Effect on iodine content of an animal of ingestion of small amounts of inorganic iodine. XIV. Effect of a single administration of inorganic iodine on the blood-iodine value, A., 541.
- Maurer, E., and Holtzhausen, P., cast-iron diagram of Maurer with varying rates of cooling, B., 18.
- Maurer, E., and Nienhaus, H., internal structure of chromium steels, B., 673.
- Maurer, H. See Küster, W.
- Maurer, H., jun., production of aluminium castings, (P.), B., 821.
- Maurer, K., fission of sugar by *Bacillus propionicus*, A., 204.
- Maurer, K. See also Prybill, A.
- Maurina, F. A., assay of phosphoric acid, B., 709.
- Mauss, H. See Auwers, K. von.
- Mauss, W., mineral separator, (P.), B., 96.
- cake-washing means for rotary drum filters, (P.), B., 507.
- Mauss, W. See also Auwers, K. von.
- Mauthe, G. See Thauss, A.
- Mauthner, F., wandering of the acyl group in 2:6-dimethoxy-phenyl acetate, A., 518.
- fission of the dioxymethylene ring, A., 637.
- synthesis of a new [methylated] gallaldehyde, A., 1009.
- course of the Friedel and Crafts synthesis of ketones with dialkyl [others of] resorcinol, A., 1014.
- Mautner, H., increasing the stability of solid sugar, more particularly starch sugar, (P.), B., 940.
- Mautner, P. See Ruff, O.
- Maxarov, B. V. See Iljinski, M. A.
- Maxim, M., and Vasilu, C., potassium, calcium, and choline content of the blood of dogs and its alterations following extirpation of the thyroid gland, A., 1274.
- Maxim, N., action of mixed organo-magnesium derivatives on aromatic diethylamides and tetraethylphthalamides, A., 619.
- action of magnesium ethyl bromide on acenaphthonequinone, A., 1137.
- Maxim, N., and Ioanid, N., action of organo-magnesium compounds on *N*-substituted cinnamic anilides, A., 1004.
- Maximoff, J., and De Costa, M. S., centrifugal liquid crucible, (P.), B., 898.
- Maximoff, J., De Costa, M. S., and Krebs, R. P. D., apparatus for refining metals, (P.), B., 759*.
- Maximov, N. A., and Krassnosselski-Maximov, T. A., variations in the process of photosynthesis, A., 1059.
- Maximovitch, S. M., and Avtonomova, E. S., kinetics of catalase, A., 549.
- Maxted, E. B., catalytic oxidation of aromatic hydrocarbons and their derivatives by means of air, B., 473.
- Maxted, E. B., and Dunsby, A. N., catalytic oxidation of nitro- and halogen derivatives of toluene by means of air, A., 849.
- influence of arsenic on the catalytic activity of platinum for the oxidation of sulphur dioxide, A., 850.
- Maxwell, G. B., and Wheeler, R. V., pressures produced on inflammation of mixtures of carbon monoxide and air and of hydrogen and air in a closed vessel, A., 248.
- flame characteristics of "pink" and "non-pink" fuels, B., 511.
- some flame characteristics of motor fuels, B., 881.
- Maxwell, H. L., utilisation of cob char as carburising agent, B., 113.
- continuous extraction apparatus, B., 695.
- Maxwell, J., Hoffmann, P. C., McCoy, C. E., and Virginia-Carolina Chemical Corporation, preparation of purified phosphoric acid, (P.), B., 927.
- Maxwell, L. C. See Bischoff, F.
- May, C. E., and Hunt, H., some azo-dyes soluble in non-aqueous solvents, B., 398.
- May, K. See Küster, W.
- May, O. E., Herrick, H. T., Thom, C., and Church, M. B., production of gluconic acid by *Penicillium luteum-purpureogenum* group I, A., 95.
- May, O. E. See also Herrick, H. T.
- May, P., West Australian sandalwood oil, B., 426.
- May, R. [with Carpenter, H. C. H.], eighth report to the Corrosion Research Committee of the Institute of Metals; corrosion of condenser tubes; "impingement attack"; its causes and methods of prevention, B., 751.
- May, R. M., microchemical studies on the nervous system. I, A., 318*.
- May & Baker, Ltd. See Newbery, G., and Stickings, R. W. E.
- Maybrey, H. J. See Stone & Co., Ltd., J.
- Mayer, S., strengths of action of alkaloids and their degrees of hydrolysis in buffered solutions as a function of hydrogen-ion concentration of the medium, A., 1155.
- Mayer, A. See Caminade, R.
- Mayer, B. See Society of Chemical Industry in Basle.
- Mayer, F., Philipps, H., Ruppert, F. W., and Schmitt, A. T., fission of hydrocarbostyryl and its derivatives to *o*-amino-phenyl-propionic and -butyric acids, A., 1257.
- Mayer, Fritz, and Müller, Philipp, synthesis of α -indanonones, A., 65.
- Mayer, H. See Wintersteiner, O.
- Mayer, J. E., influence of radiation on thermal unimolecular reactions, A., 140.
- Mayer, J. E. See also Lewis, G. N.
- Mayer, K., turbidity phenomena in gelatin, A., 585.
- Mayer, K. See also Fodor, A.
- Mayer, M. E., post mortem increase of lactic acid in the brain substance of animals, A., 1153.
- Mayer, P., comparison of the actions of arsenate and organic derivatives of arsenic acid on alcoholic fermentation of sugar, A., 446.
- Mayer, W., significance of the crystal regions α , $\alpha + \beta$, β in the system copper-zinc in the hot-working of alloys, A., 699.
- Mayes, H. A., and Turner, E. E., nitration of mixed *m*-dihalogenobenzenes, A., 513.
- Mayet, A. J. B., galvanic element with carbon and iron electrodes, (P.), B., 934.
- Mayr, C., and Kerschbaum, E., changes in the titre of thiosulphate solutions, A., 607.
- Mayr, E. See Rüdiger, M.
- Mayr, G., electrical conductivity of solids, A., 845.
- Mayr, J. K., theory of the colloid reactions of cerebrospinal fluid, A., 1323.
- Mazé, M. P., mineral nutrition of the living cell and vitamins; mineral nutrition and natural resistance of vegetable and animals to infectious diseases, A., 91.
- Mazumdar, K. See Saha, M.
- Mazumder, K. C., K-series spectrum of tungsten, A., 211.
- Mazza, F. P., rotatory dispersion of alkyl aspartates, A., 460.
- Mazzini, G. See Mezzadrol, G.
- Mazzocco, P. See Houssay, B. A.
- Mazzucchelli, A., "ebullioscopic paradox," A., 128.
- Mazzucchelli, A., and Romani, B., volumetric determination of barium as chromate, A., 264.
- Meacham, M. R., and Standard Oil Development Co., distillation of hydrocarbons, (P.), B., 513.
- Mead, B., Phelps, A. C., Washburn, C. R., Warner, J. P., Dirks, E. F., Bader, W. B., and McCabe, W. L., deterioration of mineral oils. II. Mechanism of oxidation and action of negative catalysts as determined by static methods, B., 77.
- Mead, S. W., and Guilbert, H. R., digestibility of certain fruit by-products as determined for ruminants, B., 586.
- Means, D. R., and Pittsburgh Plate Glass Co., soda ash furnace, (P.), B., 746.
- Mechanical Rubber Co. See Rose, R. P.
- Mechanite Metal Corporation. See Meehan, A. F.
- Mecke, R., chemistry and band spectra, A., 813.
- Meckwitz, J. See Menzel, H.
- Medgyes, K., production of rubber articles, (P.), B., 580.
- Medox, H. See Dodonov, J.
- Medvedev, S., and Alekseeva, E. V., oxidation of unsaturated acids by chlorates in presence of osmium tetroxide. I. Oleic and elaidic acids, A., 394.
- oxidation of unsaturated hydrocarbons by free oxygen in presence of osmium, A., 401.

- Medvedev, S., and Alekseeva, E. N., oxidation of santonin. II. Rotatory power of some oxidation products of santonin, A., 1016.
- Meehan, A. F., and Mechanite Metal Corporation, manufacture of cast iron, (P.), B., 820.
- Meeker, G. H., and Reinhold, J. G., titrimetric quinhydrone electrodes; comparison with the hydrogen electrode for p_H determinations in whole blood, plasma, and other biological fluids, A., 928.
- Meene, G. H. P. v. d. See Kolthoff, I. M.
- Meer, G. ter, centrifugal separator, (P.), B., 73.
- Meerschheidt-Hüllessem, J. von, apparatus for sampling powdered solids, B., 589.
- Meerwein, H., and Burneleit, W., action of diazomethane on ketones in presence of catalysts, A., 1217.
- Meerwein, H. See also Chemische Fabrik auf Aktien (vorm. E. Schering).
- Meggers, W. F., multiplets in the Co II spectrum, A., 807.
- Meggers, W. F., and Scribner, B. F., regularities in the spark spectrum of hafnium (Hf II), A., 1167.
- Meggers, W. F. See also Russell, H. N.
- Meglitzky, P., variations in serum-calcium, A., 316.
- Mehl, J. See Wegscheider, R.
- Mehl, R. F., crystal structure of the system cadmium-mercury, A., 350.
- interatomic forces in metals and alloys, A., 699.
- Mehl, R. F., and Mair, B. J., chemical affinity in metallic alloys, especially solid solutions; compressibility, A., 229.
- Mehner, H., production of phosphoric acid, (P.), B., 814.
- Mehner, H. See also Mark, H.
- Mehr, J. M. ver, mixing machines [for concrete], (P.), B., 405.
- Meier, C., ferrous alloy, (P.), B., 336.
- Meier, E., calcining of cement or lime, (P.), B., 194.
- apparatus for calcining cement or lime, (P.), B., 896.
- Meier, M. See Terres, E.
- Meier, P. See Thielepape, E.
- Meier & Weichelt. See Schütz, E.
- Meigs, E. B. See Cary, C. A.
- Meihuizin, S. H., determination of moisture by rapid drying, B., 696.
- Meiklejohn, R. M., and General Chemical Co., manufacture of aluminium sulphate, (P.), B., 748*.
- Meingast, R. See Consortium f. elektrochem. Ind., G.m.b.H.
- Meinhardt, H. A., solder bars, (P.), B., 413.
- Meisel, K. See Biltz, W.
- Meisenheimer, J., Grignard's reaction, A., 624.
- Meisenheimer, J., Hanssen, R., and Wächterowitz, A., configuration of *o*-substituted benzophenone oximes, A., 1136.
- Meisenheimer, J., and Mahler, Emil, stereochemistry of the saturated tervalent nitrogen atom. VIII. Methylisopelletierine, A., 905.
- Meisenheimer, J., and Schlichenmaier, W., mol. wt. and constitution of Grignard's magnesium compounds, A., 625.
- auto-oxidation of Grignard's magnesium compounds, A., 1232.
- Meissel, M. N., action of chloroform on development of yeast, B., 941.
- Meissner, F. von. See Gebauer-Fülneegg, E.
- Meissner, G. See Hesse, E.
- Meissner, J. See Schmid, Arnold.
- Meissner, K. L., aluminium alloys and sea-water corrosion, B., 56.
- experimental determination of the curve of critical dispersion of the alloy "lautal," B., 196.
- Meissner, K. W., and Graffunder, W., measurement of the life-period of excited atomic states, A., 212.
- Meissner, M. See Ostwald, Wolfgang.
- Meister, G. W., and Westinghouse Lamp Co., filament for incandescence lamps, (P.), B., 339.
- Meitner, L., γ -ray spectrum of protoactinium and the energies of the γ -rays arising from α - and β -ray changes, A., 1069.
- Meixner, K., glycerol and potassium hydroxide in the micro-spectroscopic detection of blood, A., 437.
- Mekeel, V. C., and Taylor-Wharton Iron & Steel Co., treatment of manganese steel, (P.), B., 608.
- Melcer, N., ferments of human skin, A., 440.
- Meldrum, A. N., and Hirve, N. W., derivatives of salicylic acid. I. 3-Nitro- and 5-nitro-salicylic acids, A., 637.
- Meldrum, A. N., and Patel, M. M., sodium and potassium phenoxides, A., 631.
- Meldrums, Ltd., and Marsden, F., apparatus for effecting intimate contact of gases and liquids, (P.), B., 697.
- Melin, E., growth of seedlings of conifers in crude humus. II. Formation of mycorrhiza in connexion with seedlings of *Pinus sylvestris* in different kinds of crude humus, B., 535.
- Melis, B., economic production of calcium citrate in a highly pure state, B., 12.
- transformation of fats into hydrocarbons, B., 454.
- Mellanby, E. See Green, H. N.
- Mellanby, J., isolation of secretin: chemical and physiological properties, A., 1403.
- Mellanov, I. S., and Kemikal, Inc., manufacture of oxygen-containing compounds of the aliphatic series [oxalic acid], (P.), B., 857.
- plastic material from peat, and its manufacture, (P.), B., 866.
- Melle, F. A. van. See Jaeger, F. M.
- Melliand, M., and Dubac, O., improving [surfacing] products [fabrics] obtained from vegetable fibres, (P.), B., 745.
- Mellon, M. G., and Swim, F. R., potentiometric titration of boric acid in the presence of certain inorganic salts, B., 86.
- Mellor, D. P. See McAulay, A. L.
- Mellor, J. W., extraction of platinum from ores, etc., (P.), B., 161.
- manufacture of pottery, etc., (P.), B., 368*.
- Mellor, J. W., and Ceramic Patent Holdings, Ltd., glazes for the manufacture of ceramic ware, (P.), B., 448.
- Mellquist, H. See Klason, P.
- Mélon, L. See Blanchetière, A.
- Melrose, W. K. See Sugar Beet & Crop Driers, Ltd.
- Meltzer, H., and Steuber, M., influence of section of the vagus and of morphine on the respiratory exchange, A., 1279.
- Melvin, E. H. See Ramsperger, H. C.
- Melzer, W. See Metallbank & Metallurgische Ges. A.-G.
- Menager, A., manufacture of porous materials [from sugar-factory residues], (P.), B., 15.
- Mencke, E. See Kornfeld, (Miss) G.
- Mendel, L. B., and Cannon, H. C., relation of rate of growth to diet. II., A., 196.
- Mendel, L. B. See also Anderson, W. E., and Hubbell, R. B.
- Mendel, W., and Neidich, S. A., cellulose xanthate process, (P.), B., 889.
- Mendoza, M. See British Dyestuffs Corporation, Ltd.
- Menell, G., retort for the distillation of bituminous solid fuels, in particular bituminous shale, coal, peat, etc., (P.), B., 593.
- Menger, R. See Bettzieche, F.
- Mengert-Presser, H., haemoglobin and iron in blood under tropical conditions, A., 314.
- Menke, J. B., catalytic action of mercury and bismuth [in nitration], A., 746.
- Menkin, (Miss) M. F. See Cohn, E. J.
- Menne, F., and Hoevel, H. F., furnace, (P.), B., 771.
- Mennecke, R. F., and Picard, L., [removal from cotton yarns and fabrics of] mineral oil stains, B., 741.
- Menon, K. N., some derivatives of diphenylmethane, A., 52.
- Menon, K. N. See also Hariharan, K. F.
- Menschikov, G. See Magidson, O.
- Menschutkin, B. N., and Butkov, N. A., investigation by means of thermal analysis of the reaction for obtaining naphthylamines from naphthols, A., 55.
- Menschutkin, V., and Wolf, M., action of fuming sulphuric acid on cyclohexane, A., 1364.
- Mensing, C. E. See Linville, C. P.
- Mensing, (Frl.) L., theory of the collisions between atoms and slow electrons, A., 345.
- Menzel, D. H., density necessary to produce the nebular spectrum, A., 450.
- Menzel, H. [with Meckwitz, J., and Kretzschmar, W.], boric acids and alkali borates. IV. Solid alkali perborates, A., 32.
- Menzer, G., crystal structure of linneite, polydymite, and synchodymite, A., 109.
- crystal structure of cryolithionite, A., 940.
- Menzies, A. C., shifts and reversals in fuse-spectra, A., 99.
- spark spectrum of copper, A., 806.
- Menzies, A. W. C., "dative" chemical linking, A., 349.
- Menzies, R. C., trimethylplatinum acetylacetonate, a volatile platinum compound, A., 509.
- Menzies, R. C., and Keiser, (Miss) M. E., applications of thallium compounds in organic chemistry. IV. Thallium compounds of polyhydroxy-compounds, A., 275.
- Menzies, R. C., Sidgwick, N. V., Cutcliffe, E. F., and Fox, J. M. C., chelate compounds of thallium dialkyl, A., 745.
- Merchant, R., and Marvel, C. S., β -vinylpiperidine, A., 647.
- Merck, E., parasiticide and disinfectant, (P.), B., 240.

- Merck, *E.* See also Merck, *W.*
- Merck, *E.*, Chemische Fabrik, and Heussler, *O. von*, separating mixtures of two liquids, (P.), B., 112.
- Merck, *E.*, Chemische Fabrik, and Langenkamp, *P.*, clarification of liquids and solutions, (P.), B., 41.
- Merck, *E.*, Chemische Fabrik, and Oberlin, *M.*, manufacture of phenolic bases of the alkaloid series, (P.), B., 285.
- Merck, *F.* See Merck, *W.*
- Merck, *K.* See Merck, *W.*
- Merck, *L.* See Merck, *W.*
- Merck, *W.*, Merck, *K.*, Merck, *L.*, Merck, *W.*, (Merck, *E.*), and Merck, *F.*, production of preparations having an antirachitic action, (P.), B., 836.
- Merck & Co., process of making colloidal iodine, (P.), B., 670. iodine compositions [with anthelmintic properties]; surgical iodine [compositions], (P.), B., 836.
- Merck & Co. See also Rosin, *J.*
- Merica, *P. D.*, Wickenden, *T. H.*, and International Nickel Co., additional material for ferrous metals, (P.), B., 789.
- Merkle, *M.* See Stollé, *R.*
- Mermoud, *R.* See Duboux, *M.*
- Merriam, *H. F.*, and General Chemical Co., burning or subliming of sulphur, (P.), B., 262.
- Merrill, *G. P.*, meteoric irons from Bolivia, W. Arkansas, and Michigan, A., 391.
- Merrill, *H. B.*, fat-liquoring [of leather], B., 277. effect of egg yolk on the distribution of oil in chrome calf leather, B., 580.
- Merrill, *H. B.*, and Fleming, *J. W.*, effect of temperature on the hydrolysis of skin and hair in saturated lime water, B., 166.
- Merrill, *H. B.*, Niedercorn, *J. G.*, and Quarck, *R.*, determination of sulphato-groups in chrome-[tanned] leather, B., 496.
- Merrill Co. See Mills, *L. D.*
- Merritt, *M. M.*, and United Shoe Machinery Corporation, tanning of hides, (P.), B., 534.
- Merry, *J.* See Gordon, *P. F.*
- Mertens, *E.*, extraction of fatty matter from foams formed by the beating, froth-flotation, or other treatment of wool-washing waters, (P.), B., 258.
- Mertens, *E.* See also Schumm, *O.*
- Merton, *T. R.*, new effect in the electric discharge, A., 341.
- Merve, *P. van der*, histamine derivatives, A., 1145.
- Merwin, *H. E.* See Hendricks, *S. B.*
- Merz, *A.*, and Pfannenschmidt, *C.*, annealing of hardened steel, particularly at low temperatures, B., 16.
- Merz, *A. R.*, and Whittaker, *C. W.*, free energy and fugacity in gaseous mixtures of hydrogen and nitrogen, A., 840.
- Merz, *F.* (Merz & Co.), manufacture of ointments, (P.), B., 769*.
- Merz, *K. W.* See Edlbacher, *S.*
- Merz, *O.*, tetrabromido of elaeostearic acid, B., 578.
- Merz & Co., preparation of ointments, especially water-ointments with high lubricating power, (P.), B., 548.
- Merz & Co. See also Merz, *F.*
- Merz & McLennan. See Weeks, *E. G.*
- Merzbacher, *S.*, oxidation processes of drying oils, B., 678.
- Messiner, *L.* See Barrenschenn, *H. K.*
- Messini, *M.*, degree of dispersity and pharmacological action of colloidal sulphur, A., 444. stability of colloidal ferrous phosphato prepared by means of gelatin or blood-serum, A., 1090. change of soluble ferrous salts in organisms, A., 1275.
- Messner, *G.* See Lange, *W.*
- Messner, *W.* See Rupe, *H.*
- Mésian, *F.*, photometric determination of colour of malt worts, B., 725.
- Meston, *A. F.*, and De Laval Separator Co., reclaiming used lubricating and insulating oils, (P.), B., 472.
- Metal Edge Filter Corporation, [edge] filters, (P.), B., 320.
- Metal Research Corporation. See Parsons, *C. E.*
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., distillation of fuel by a current of hot gases, (P.), B., 6. sintering, desulphurising, or removing volatile constituents from ores and metallurgical products, (P.), B., 21. recovery of volatile solvents by adsorption, (P.), B., 111. apparatus for purifying and cooling gases, (P.), B., 216. production of zinc salts [sulphate], (P.), B., 230. disintegration of liquid alumina, (P.), B., 231. agglomeration or briquetting of tin ores, (P.), B., 269. production of aluminium or aluminium alloys from alumina, (P.), B., 337.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., production of rich gas and semi-coke from bituminous fuel, (P.), B., 357. soldering lead-bearing metal castings, (P.), B., 610. apparatus for electrical precipitation of suspended particles from gaseous fluids, (P.), B., 734. manufacture of sulphuric acid, (P.), B., 746. utilisation of gas mixtures containing varying proportions of sulphur dioxide and water vapour for the manufacture of sulphuric acid, etc., (P.), B., 746. rotary drum furnace for roasting sulphur-containing ores, etc., (P.), B., 788. recovery of zinc from fine ores, etc., (P.), B., 789. vulcanising natural or artificial rubber, (P.), B., 794. coating of metals by the cementation process, (P.), B., 821. copper alloys, (P.), B., 898. arrangement of electrodes for electrical gas purifiers, (P.), B., 900. hard solder for grey pig iron, cast steel, iron, etc., (P.), B., 931. [silicon]-copper alloys, (P.), B., 932.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., Deutsche Sprengstoff Akt.-Ges., Melzer, *W.*, and Boltenstern, *W. von*, production of nitric acid, (P.), B., 51.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Girssewald, *C. B. von*, production of aluminium oxide from aluminium sulphide or mixtures containing same, (P.), B., 710.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Hubmann, *O.*, low-temperature carbonisation process, (P.), B., 79.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Hueter, *E.*, working of electrical gas purifiers, (P.), B., 22.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Scheller, *E.*, manufacture of activated charcoal or carbon, (P.), B., 593.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges., and Schoenberg, *G.*, production of alumina, (P.), B., 333.
- Metallbank & Metallurgische Gesellschaft Akt.-Ges. See also K.D.P., Ltd., and Salerni, *P. M.*
- Metallisation, Ltd., and Arnold, *A. A.*, rendering joints, rivets, etc., water- and/or steam-tight, (P.), B., 21.
- Metallisation, Ltd. See also Cozens, *F. G.*
- Metallisor Berlin Akt.-Ges., and Greiser, *E.*, apparatus for atomising and spraying metals and other fusible materials [in the form of wire or powder], (P.), B., 821. spraying and atomising fusible [metallic] material, (P.), B., 933.
- Metallisor Berlin Akt.-Ges. See also Hopfelt, *R.*
- "Metallogen" Ges.m.b.H., cleaning and coating of metal articles, (P.), B., 305.
- "Metallogen" Ges.m.b.H. See also Meurer, *N.*
- Metallwerk Plansee G.m.b.H., and Deutsche Glühfadefabr. *R. Kurtz & P. Schwarzkopf* G.m.b.H., production of molybdic and tungstic acids from ores, (P.), B., 332.
- Metallwerk Plansee G.m.b.H., and Schwarzkopf, *P.*, [protecting resistors in] electrical resistance furnaces, (P.), B., 98.
- Metals Disintegrating Co., Inc. See Hall, *E. J.*
- Metals Production Co. of North America, Inc. See Moulden, *J. C.*
- Metals Protection Corporation, and Humphries, *C. H.*, chromium plating, (P.), B., 97.
- Metals Protection Corporation, and Patten, *J. C.*, polishing of chromium, (P.), B., 863.
- Metals Protection Corporation. See also Humphries, *C. H.*
- Metalf, *H. E.*, and Magnavox Co., construction of vacuum tubes, (P.), B., 236.
- Metropolitan-Vickers Electrical Co., Ltd. See Bailey, *J. N.*, Davis, *N. R.*, and Fletcher, *G. H.*
- Mettler, *C.*, and Geigy Akt.-Ges., *J. R.*, manufacture of diphenyl- and ditolyl-methane [mordant] azo-dyes, (P.), B., 924*.
- Metz, *E.*, iodometric determination of homogentisic acid in urine, A., 195.
- Metz, *E.* See also Katsch, *G.*
- Metz, *L.*, rapid extraction apparatus, A., 502.
- Metz Laboratories, Inc., *H. A.* See Dubin, *H. E.*, and Funk, *C.*
- Metzger, *R.*, and Grasselli Dyestuff Corporation, dyeing preparation for cellulose esters, (P.), B., 365*.
- Metzger, *W. H.*, effect of growing plants on solubility of soil nutrients, B., 458.
- Metzger, *W. H.* See also Janssen, *G.*
- Meulen, *A. A. van der*, protective compositions particularly for anti-corrosive purposes, (P.), B., 237.
- Meulen, *H. ter*, determination of chlorine, bromine, and iodine in organic compounds, A., 724.
- Meulen, *J. H. van der*, preparation of metal bromides, (P.), B., 815.

- Meunier, *L.*, tanning by means of condensation products of aldehydes and phenols and their derivatives, *B.*, 828.
- Meunier, *L.*, and Gastellu, *C.*, synthetic tannins, *B.*, 133, 617*.
- Meunier, *L.*, and Rey, *G.*, properties of wool, *B.*, 600.
- Meurer, *N.*, and Metallogen Ges.m.b.H., impregnation of metal layers, (*P.*), *B.*, 863*.
- Meursing, *A. H.*, Gratama, *E. J.*, and Rody, *T.*, light-sensitive paper, etc., (*P.*), *B.*, 245.
- Meuser, *L.* See Adams, *H. S.*
- Mevius, *W.*, influence of reaction on the action of ammonium salts on growth of *Zea mais*, *B.*, 278.
- calcium ion and root-growth, *B.*, 535.
- Meyden, *H. van der*. See Rossem, *A. van*.
- Meyer, *A.*, catalytic action of mercury in the sulphonation of anthraquinone, *A.*, 181.
- condensation products of homophthalimide [2:4-dihydroxy-isoquinoline] and aromatic aldehydes, *A.*, 773.
- Meyer, *A. L.*, effect of carbon monoxide and oxygen at high pressure on the oxidation of guaiacum by animal tissue, *A.*, 910.
- Meyer, *C.* See Perdrizet, *P.*
- Meyer, *C. F.*, Bronk, *D. W.*, and Levin, *A. A.*, infra-red absorption spectra of several gases, *A.*, 217.
- Meyer, *C. F.* See also Levin, *A. A.*
- Meyer, *D.* See Obst, *P.*
- Meyer, *E.*, limits of the periodic system, *A.*, 104.
- Meyer, *E. G. E.*, fuel for use in internal-combustion engines, etc., (*P.*), *B.*, 514*.
- Meyer, *F.*, glass vessels, (*P.*), *B.*, 264.
- Meyer, *F.*, Spanner, *H. J.*, and Herfurt, *E.*, electrical, gas-filled discharge tubes, (*P.*), *B.*, 529.
- Meyer, *Franz*, furnace system for chemical reactions at high temperatures, *B.*, 695.
- Meyer, *F. W.*, purification of sugar solutions, (*P.*), *B.*, 725.
- Meyer, *G.*, and Soheffer, *F. E. C.*, formation of carbides in the system metal-carbon-oxygen, *A.*, 480.
- Meyer, *G. M.* See Levene, *P. A.*
- Meyer, *H.*, application of metallography in improving the quality [of iron and steel], *B.*, 409.
- Meyer, *Hans*, and Graf, *R.*, action of thionyl chloride on pyridine-monocarboxylic acids, *A.*, 1379.
- Meyer, *H. H.*, fibrous structure of silver bromide in the films of photographic dry plates, *B.*, 655.
- Meyer, *J.* See Kwiecinski, *L.*
- Meyer, *Julius*, aluminium and [its use in] cement, *B.*, 158.
- light porous concrete, *B.*, 712.
- Meyer, *Julius*, and Aulich, *W.*, double salts of selenic acid, *A.*, 856.
- hydrazine selenate, *A.*, 1200.
- Meyer, *K.* See Fischer, *F.*
- Meyer, *Karl*, purification of the lactic acid-forming enzyme, *A.*, 445.
- Meyer, *Karl*. See also Meyerhof, *O.*
- Meyer, *Konrad*, measurement of suction power in the seedling stage, *B.*, 421.
- Meyer, *K. H.*, [preparation of] nitroanthrone, *A.*, 642.
- [preparation of] anthrone, *A.*, 642.
- Meyer, *K. H.*, and Mark, *H.*, structure of the crystalline component of cellulose, *A.*, 621.
- structure of chitin, *A.*, 1228.
- structure of silk fibroin, *A.*, 1229.
- caoutchouc, *A.*, 1252.
- Meyer, *K. H.* See also I. G. Farbenind. A.-G.
- Meyer, *L.* See Eucken, *A.*
- Meyer, *Oskar*, accurate gas burette for the volumetric determination of carbon [in steel], *B.*, 753.
- Meyer, *Oskar*, and Roesch, *K.*, electrochemical behaviour and tendency to rusting of chromium steels, *B.*, 861.
- Meyer, *Otto*, manufacture of starch compositions particularly suitable for use as adhesives, (*P.*), *B.*, 345.
- Meyer, *Rudolf*, influence of temperature on the growth of fungi, *A.*, 1291.
- dependence of the slope of the nitrogen growth curve on the phosphoric acid supply for *Aspergillus niger*, *A.*, 1291.
- Meyer, *Rudolf*, and Storek, *A.*, yield of oats as a function of the nitrogen supplied and the growth period, *B.*, 342.
- Meyer, *Rudolf*. See also Riess, *G.*
- Meyer, *R. J.* See Bodenstein, *M.*
- Meyer, *S.*, changes in the blood as reflecting industrial damage, *A.*, 544.
- Meyer, *Stefan*, at. wt. and packing effect, *A.*, 103.
- Meyer, *W.*, sodium arsenite solution, *A.*, 1346.
- solubility of glass constituents, *B.*, 262.
- Meyerheim, *G.*, and Frank, *F.*, flash-point determinations [for oils] in the normal flash-point apparatus, *B.*, 804.
- Meyerhof, *O.*, lactic acid formation in muscular contraction, *A.*, 1398.
- Meyerhof, *O.*, and Lohmann, *K.*, natural guanidinophosphoric acids (phosphagens) in striped muscle. I. Physiological behaviour of phosphagens. II. Physico-chemical properties of guanidinophosphoric acids, *A.*, 917.
- new aminophosphoric acid [in invertebrate muscle], *A.*, 1277.
- Meyerhof, *O.*, and Meyer, *Karl*, purification of the lactic acid-forming enzyme of muscle, *A.*, 671.
- Meyerhof, *O.*, and Nachmansohn, *D.*, transformation of phosphagen in muscle, *A.*, 1277.
- Meyerhof, *O.*, and Schulz, *Walter*, relation between lactic acid formation and oxygen consumption in muscle contraction, *A.*, 916.
- Meyerhof, *O.*, and Suranyi, *J.*, heat measurements of the chemical reactions in muscle, *A.*, 197.
- Meyerhof, *O.* See also Gerard, *R. W.*
- Meyerhofer, *A. F.*, and Buchner, *M.*, production of soluble alkali hydroxides, (*P.*), *B.*, 333.
- production of complex fluorides, (*P.*), *B.*, 403.
- Meyerhofer, *A. F.* See also Buchner, *M.*
- Meyers, *C. H.*, design of equipment for measuring the specific volume of carbon dioxide vapour, *A.*, 1208.
- Meyers, *C. H.* See also Kennedy, *H. T.*, and Olson, *A. R.*
- Meyers, *H. H.*, and Armour Fertilizer Works, manufacture of [partially dehydrated] disodium [hydrogen] phosphate, (*P.*), *B.*, 191.
- Meyers, *L. D.*, and Stegeman, *G.*, solid-solution formation in mixtures of paraffin waxes, *B.*, 592.
- Meyersohn, *P.* See Fringsheim, *H.*
- Meyn, *W.*, ageing phenomena in quartz mercury-vapour lamps, *B.*, 677.
- Meynardie, *P. J. de S. A.*, apparatus for concentrating aqueous liquids, (*P.*), *B.*, 288*.
- Meythaler, *F.* See Grafe, *E.*
- Mezey, *E.*, capacity of chrome-tanned leather for absorbing sulphonated and non-sulphonated fats, *B.*, 533.
- Mezger, *R.*, production of stable [oil] emulsions, (*P.*), *B.*, 359*.
- Mezger, *R.* See also Nübling, *R.*
- Mezler-Andelberg, *E.* See Schwarz, *K.*
- Mezquita, *A. T.*, alimentary industrial product consisting of the juices of oranges or lemons, with their pulps and free from their essences, (*P.*), *B.*, 67.
- Mezzadrol, *G.*, saccharification of amylaceous substances and manufacture of ethyl alcohol and dextrose in an antiseptic medium by means of oriental bio-enzymes, *B.*, 499.
- Mezzadrol, *G.*, and Gardano, *G.*, formation of formaldehyde and of sugars by the action of ultra-violet rays on alkali and alkaline-earth hydrogen carbonates, *A.*, 255.
- Mezzadrol, *G.*, and Mazzini, *G.*, continuous automatic counter-current extractor for starch and saccharine substances with press elevator, *B.*, 940.
- Mezzadrol, *G.*, Mutti, *I.*, and Piombo, *A.*, desaccharification of molasses by the acetic acid method, *B.*, 137.
- Micewicz, *S.*, decomposition of water and aqueous chloride solutions by powdered iron, *A.*, 375.
- reduction of aromatic nitro-derivatives by means of iron in the presence of magnesium chloride, *A.*, 628.
- Michael, *A.* See I. G. Farbenind. A.-G.
- Michael, *F.* See Lorenz, *R.*
- Michael, *W.* See I. G. Farbenind. A.-G.
- Michael & Co. See Ullmann, *F.*
- Michaelis, *L.*, and Flexner, *L. B.*, oxidation-reduction systems of biological significance. I. Reduction potential of cysteine, *A.*, 1330.
- Michaelis, *L.*, and Weech, *A. A.*, permeability of membranes. IV. Variations of transfer numbers with the dried collodion membrane produced by the electric current, *A.*, 121.
- Michaelis, *L.* See also Weech, *A. A.*
- Michaelis, *P.* See Schenck, *R.*
- Michaelis, *W.* See Dimroth, *O.*
- Michailenko-Malenko, *M.*, determination of total acid in tan liquor, *B.*, 829.
- Michalek, *J. C.* See Rodebush, *W. H.*
- Michallet, *L.* See Chambard, *P.*
- Michalski, *W.* See Chrzaszcz, *T.*
- Michalsky, *L.* See Sauerwald, *F.*
- Michaud, *F.* See Goursat, *L.*
- Michaux, (*Mlle.*) *A.* See Randoin, (*Mme.*) *L.*

- Micheel, F. See Hess, K.
- Michel, G., [work of evaporation of thermions], A., 213.
- Michel, Gilbert, manufacture of sand mould for casting magnesium, (P.), B., 863*.
- Michel, R. See I. G. Farbenind. A.-G.
- Michel-Durand, physiological significance of pyrogallol tannins, A., 558.
- physiological significance of pyrocatechol tannins, A., 802.
- Michels, A., and Coetier, F., ice-point of the thermometer scale, A., 592.
- Michels, A., and Geels, P., influence of pressure on the electrical conductivity of gold up to 1000 atm., A., 695.
- measurement of [temperature with] a resistance thermometer, A., 1208.
- Michels, M., decoration of fabrics by the reducing action of light on silver salts, (P.), B., 69.
- mordanting of basic dyes, B., 401.
- production of [coloured] photographic prints on cellulosic materials [cotton fabrics], B., 480.
- absorption of basic dyes by complex mineral salts, B., 761.
- Michigan Sugar Co. See Lindfors, K. R.
- Michl, V. See Cordebar, H.
- Michniewski, S. See Terlikowski, F.
- Micka, J., determination of flour ash, B., 105.
- Micka, J., and Child, E., factors influencing the absorption in experimental baking [of dough], B., 621.
- Mickwitz, A., selenium cells as colorimeters, A., 862.
- Middleton, A. W. See McLachlan, T.
- Middleton, C. O. See Gray, W. W.
- Middleton, G., and Hymas, F. C., tests for impurities in ether. I. Test for peroxides, B., 425.
- Midgley, E. See Cunliffe, P. W.
- Midgley, T., jun., and General Motors Corporation, motor fuel, (P.), B., 357, 438.
- Midland Coal Products, Ltd., and Ingman, C., carbonisation of briquettes and carbonisation plants therefor, (P.), B., 251.
- Midwest Metallurgical Corporation. See Cape, A. T.
- Midwest Steel & Supply Co., Inc. See Goodloe, A. M.
- Mieg, W., Job, A., and Grasselli Dyestuff Corporation, vat dye from dianthraquinonyldiaminophenanthraquinone, (P.), B., 924.
- Miehr, W., Kratzert, J., and Immke, H., effect of firing on the chemical and physical properties of refractories, B., 367.
- Mielck, H., continuous treatment [e.g., hydrogenation] of liquids with gases, (P.), B., 659.
- Mieres, M. (Comte de). See Salazar, E. A.
- Mies, H., determination of the unburnt constituents of flue gases by combustion over copper oxide, B., 510.
- Mieseher, K. See Society of Chemical Industry in Basle.
- Miething, H., optics of the total radiation pyrometer, A., 729.
- Migliacci, D., constitution of ethyl succinylsuccinate and of ethyl *p*-dihydroxyterephthalate, A., 289.
- colour reactions with lecithin, A., 1043.
- Migliacci, D., and Furia, M., constitution of *C*-methylasparagine (homoasparagine), A., 511.
- Migliacci, D., and Gargiulo, R., condensation products of diethyl succinylsuccinate with primary arylamines, A., 638.
- Migliacci, D. See also Berlingozzi, S.
- Miguet, P. L. J., and Société Electrometallurgique de Montricher, electric [reducing] furnace, (P.), B., 129.
- Mihul, C., structure of the O II spectrum, A., 1.
- line spectrum of oxygen, A., 450.
- Mihul, (Mlle.) J. See Gutton, C.
- Mijer, P., and Two-Tone Corporation, dyeing, B., 856.
- Mika, J., theory of sampling, A., 496.
- potentiometric determination of iron, A., 500.
- Mikhailov, P. B., resistance to corrosion, and mechanical properties of grey iron containing a small proportion of copper, B., 335.
- Mikeska, L. A. See Levene, P. A.
- Mikhailov, A. K. See Sadikov, V. S.
- Mikhailovski, S. M., influence of ultra-violet radiation on some physico-chemical and biological properties of tuberculin, A., 1286.
- Mikó, G., thalleioquinine reaction of quinine salts, A., 1146.
- stability and value of chlorine water, B., 835.
- antipyrinum coffeinocitricum, B., 873.
- evaluation of theobrominum natriosalicylicum, B., 873.
- Mikó, G., and Mikó, I., evaluation of guarana, B., 873.
- Mikó, I. See Mikó, G.
- Mikó, S. V., detection of iodides in alkali bromides, B., 51.
- Miksić, J., action of oxalyl chloride on resorcinol, A., 999.
- Miksić, J., and Pinterovic, Z., preparation of phenyl and tolyl oxalates, A., 997.
- Mikšić, J. See also Votoček, E.
- Milanesi, E., intensity of the action of quinine salts in relation to their fluorescence, A., 1400.
- Milani, C., determination of the purity of olive oils, B., 130.
- Milas, N. A., catalytic oxidations in aqueous solutions. II. Oxidation of primary alcohols, A., 392.
- Millbauer, J., toning with selenium compounds, B., 213.
- Millbauer, J., and Judenič, V., reduction of potassium nitrate by water-gas, A., 252.
- Miles, E. H., and Reilly, G., preparation of vegetable food, (P.), B., 425.
- Miles, J. B., jun. See Zahn, C. T.
- Miley, H. A. See Pietenpol, W. B.
- Millhorat, A. T., and Chambers, W. H., effect of insulin on protein metabolism, A., 799.
- Millhorat, A. T. See also Chambers, W. H., and Deuel, H. J., jun.
- Millar, R. W., vapour pressures of potassium amalgams, A., 130.
- specific heats at low temperatures of manganous oxide, manganosomanganic oxide, and manganese dioxide, A., 936.
- rate of reaction of liquid and gaseous zinc with carbon monoxide, A., 1333.
- condenser materials and blue powder in zinc smelting, B., 862.
- Millar, R. W. See also Tilley, G. S.
- Millar, W. H., arsenious oxide in neutral and alkaline solution, B., 315.
- Miller, A., and Tower Manufacturing Co., Inc., purification of *p*-nitroaniline, (P.), B., 740.
- Miller, A. B., and Claxton, E., atmospheric oxidation of methyl and glycol esters of β -claeostearic acid, B., 163.
- Miller, A. C. See Thompson, T. G.
- Miller, B. E. M. See Brady, O. L.
- Miller, (Miss) C. C., preparation and properties of pure phosphorus trioxide, A., 972.
- Miller, C. O., vitamin-A and -B content of the pigeon pea (*Cajanus indicus*), A., 1405.
- Miller, E. B., Connolly, C. C., and Silica Gel Corporation, manufacture of [silica] gels, (P.), B., 641.
- Miller, E. B., and Silica Gel Corporation, drying hydrogels, (P.), B., 641.
- Miller, E. B. See also Patrick, W. A., and Silica Gel Corporation.
- Miller, E. G., jun. See Grayzel, D. M.
- Miller, E. H. See Sherman, H. C.
- Miller, E. J., and Bandemer, S. L., adsorption from solution by ash-free adsorbent charcoal. V. Adsorption from buffer solutions as a means of determining the isoelectric point for charcoal, A., 831.
- Miller, E. R., cornin: a glucoside from *Cornus florida*, L., A., 1137.
- Miller, E. V., and Hibbard, R. P., aqueous extracts of seeds as agents in the preparation of silver sols, A., 122.
- Miller, F. L. See Bartell, F. E.
- Miller, G. J., reclaiming of rubber, (P.), B., 204.
- manufacture of [rubber] stuffing, (P.), B., 378.
- Miller, G. W. See Shepard, N. A.
- Miller, H. N., and Fansteel Products Co., Inc., electrolytic condenser and electrolyte therefor, (P.), B., 612.
- Miller, K. Y., magnetic properties of evaporated films of nickel, A., 1314.
- Miller, L. B. See British Thomson-Houston Co., Ltd.
- Miller, M. S., influence of nitrate concentration on the development of barley and the absorption of nitrate from nutrient solution, B., 278.
- Miller, R. C., Ramage, W. D., and Lazier, E. L., physical and chemical conditions in San Francisco Bay, especially in relation to the tides, A., 1210.
- Miller, S. P., Hill, J. B., and Barrett Co., polymerisation and purification of hydrocarbons, (P.), B., 780.
- Miller, S. P., and McKinney, P. V., simple, automatic control of vacuum, A., 729.
- Miller, T. See Brody, E.
- Miller, T. W., and Faultless Rubber Co., manufacture of sponge rubber, (P.), B., 650.
- Miller, W. B. See British Celanese, Ltd., and Ellis, G. H.
- Miller, W. T., and United States Coal Manufacturing Co., production of briquettes, (P.), B., 593.
- Millet, H., p_H of normal, foetal, and neoplastic tissues, A., 1049.
- Millett, J. A. P. See Henderson, M.
- Milligan, C. H., recovery of sodium compounds from waste sulphite-cellulose liquors, (P.), B., 155.

- Millikan, R. A., and Cameron, G. H., evidence for the continuous creation of the common elements out of positive and negative electrons, A., 811.
- origin of the cosmic rays, A., 1303.
- Millington, G. See White, P.
- Millot, J., and Giberton, A., histological use of formaldehyde as preservative, A., 1152.
- Milking, E. R., and American Machine & Foundry Co., coating metal [with lead alloy], (P.), B., 271.
- Mills, C. A., is kephalin necessary for the activation of prothrombin? A., 83.
- Mills, C. A., and Necheles, H., variations in the coagulability of the blood normally and after ingestion of food, A., 439.
- relation of blood coagulability to body metabolism and to the specific dynamic action of food, A., 439.
- Mills, H., and Robinson, P. L., ammonium polysulphides, hydrogen pentasulphide, and the thiocarbonic acids, A., 1200.
- Mills, H. V. T., and Noble, V. d'O., composition fuel [briquettes], (P.), B., 593.
- Mills, K. S., apparatus for the dyeing or treating of hanks, (P.), B., 856.
- Mills, L. D., and Merrill Co., apparatus for removing gases from liquids, (P.), B., 552.
- Mills, R. R. See Hatfield, W. D.
- Mills, W. H., and Elliott, K. A. C., molecular dissymmetry dependent on restriction of rotation about a single linking; optically active benzenesulphonyl-8-nitro-1-naphthylglycine, A., 748.
- Mills, W. H., and Ordish, H. G., cyanine dyes. X. Constitution of the apocyanines, A., 308.
- Mills, W. H., and Whitworth, J. B., condensation of *o*-aminothiophenol with $\alpha\beta$ -unsaturated acids, A., 77.
- Mills & Co. [Engineers], Ltd., and Porter, W. H., water-softening apparatus for use with steam generators or other plant requiring softened water, (P.), B., 286.
- Milne, S., removal of impurities from paper pulp, etc., (P.), B., 565.
- digestion of raw materials for papermaking, etc., (P.), B., 889.
- Milobedzki, T., accuracy of titration of acids and alkalis, A., 36.
- Milobedzki, T., and Kolitovska, (Mme.) H., action of menthol on phosphorous chlorides and oxychloride, A., 644.
- Milone, M. See Semeria, G. B.
- Miloslavsky, N. M., and Vepritzka, V. F., rapid method for determination of carbon in iron and steel, A., 588.
- Miloslavsky, N. M., and Vilenko, E. A., rapid method for the determination of calcium and magnesium present together, A., 859.
- Milovidov, P., chemical constitution of chondriosomes and protoplasts of plants, A., 1062.
- Milroy, A. See Egg Patents, Ltd.
- Milroy, J. A., micro-method for determination of fats and lipins of blood, A., 1270.
- Milroy, T. H. See Beattie, M. K.
- Minatoya, S., and Kaneko, H., rotatory powers and melting points of the resinous constituents of gutta-percha, balata, and allied gums, B., 419.
- Minatoya, S., Okuhara, H., and Ohki, S., determination of inorganic matter in soft rubber goods, B., 903.
- Minchin, S. T., and Mixon, G. R., examination of petroleum distillation from various sources. I. Preparation of a standard motor spirit and a standard kerosene, B., 699.
- Minder, L., detection of cider in wine by microscopical examination of the sediment, B., 383.
- Miner, C. S. See Trickey, J. P.
- Miner Laboratories, [preparation of] 2-furylmethyl acetate, A., 426.
- Minerals Separation North American Corporation. See Chapman, G. A., Keller, C. H., Lewis, C. P., Martin, R. B., Smith, H. H., Stenning, W. W., and Wilkinson, E. W.
- Minet, A. See Construction Franç. d'Appareils de Laiterie.
- Mingasson, G. See Grignard, V.
- Mingoia, Q., constitution of organo-magnesium compounds, A., 1266.
- Mingoia, Q. See also Oddo, B.
- Minimax Akt.-Ges. See Excelsior Feuerlöschgeräte A.-G., and Schnabel, R.
- Minina, E. G., acidity of root secretions, A., 1162.
- Minnaest, M., intensity distribution in Fraunhofer lines, A., 337.
- Minnesota Mining & Manufacturing Co., and Carlton, R. P., manufacture of flexible abrasive articles such as sandpaper, etc., (P.), B., 826.
- Minnesota Mining & Manufacturing Co. See also Okie, F. G.
- Minnich, W. See Society of Chemical Industry in Basle.
- Minogue, R. E., agitators [for cement slurry], (P.), B., 607.
- Minor, H. R., and General Carbonic Co., treatment of rubber stock, (P.), B., 650.
- Minot, G. R. See Cohn, E. J.
- Minsaas, J. See Riiber, C. N.
- Minton, Le R. H., manufacture of zircon refractories, (P.), B., 895.
- Minton, O., [rotating] means for sealing vacuum treatment [drying] apparatus, (P.), B., 698.
- Minunni, G., Hantzsch and Werner's stereochemical hypothesis in comparison with experimental facts and the constitution of isomeric oximes, A., 1219.
- Minunni, G., and D'Urso, S. [with Terranova, G.], syntheses in the amino-acid group. I. Condensation of aldoximes with esters of β -ketonic acids, A., 1245.
- Mion, P. See Gay, L.
- Mircescu, J. See Angelescu, E.
- Mirlesse, L., and Kusnetsov, A. I., regeneration of lubricating oils contaminated in thermal engines, (P.), B., 254.
- Mirolubov, N. See Frenkel, J.
- Misch, O., oil-gas producer, (P.), B., 5.
- generation of water-gas from bituminous fuel, (P.), B., 437.
- Mischtschenko, K. P. See Vrevski, M. S.
- Misciattelli, P., radioactive pyromorphite from Sardinia, A., 1340.
- Mishima, T. See Nagaoka, H.
- Mislin, E., Daubek, J. F., and Daubek, G., increasing the usefulness of fodder and food, (P.), B., 912.
- Mislowitzer, E., Congo-red as deproteinising agent, A., 563.
- apparatus for measuring ionic concentration, (P.), B., 59.
- Mislowitzer, E. See also Rona, P.
- Misra, S. K. See Warth, F. J.
- Mitchell, A. C. G., fluorescence in mixtures of ammonia and mercury vapour, A., 5.
- distribution of velocity of the excited sodium atoms produced in the optical dissociation of sodium iodide, A., 935.
- Mitchell, A. E. See Synthetic Ammonia & Nitrates, Ltd.
- Mitchell, C., test for alkalies [in urine], A., 1273.
- Mitchell, D. P. See Davis, B.
- Mitchell, H. H., quantitative methods of measuring the nutritive value of proteins, A., 1278.
- Mitchell, H. H., and Kruger, J. H., effect of muscular work on endogenous tissue catabolism, A., 323.
- Mitchell, J. H., manufacture of composition paper or pulp board, (P.), B., 11.
- Mitchell, L. C., the sand-Gooch method for analysis of butter, B., 283.
- Mitchell, L. C., and Alfend, S., iodine value of Spanish paprika oil, B., 935.
- Mitchovitch, V. M. See Vavon.
- Mitra, A. K. See Neogi, P.
- Mitra, B. N. See Ghosh, J. C.
- Mitra, H. K., and Silverman, A., prevention of disintegration of blast-furnace linings, B., 570.
- Mitra, N. C. See Bhatnagar, S. S.
- Mitra, N. G. See Bhatnagar, S. S.
- Mitscherlich, E. A., theory of growth factors [of soils], B., 764.
- Mitschke, T. J. F., rapid determination of sugar in urine, A., 86.
- Mitsotakis, J. See Bauer, K. H.
- Mitsubishi Kogyo Kabushiki Kaisha. See Anjow, K.
- Mitsukuri, S., and Sakamoto, Y., adsorption velocity of carbon dioxide by the still surface of sodium hydroxide solution, A., 231.
- Mittasch, A., iron carbonyl and carbonyl iron, B., 675.
- compound and complete fertilisers, B., 724.
- Mittasch, A., and Kuss, E., ammonia synthesis with catalysts obtained from complex cyanides of iron, B., 522.
- Mittasch, A., Kuss, E., and Emert, O., thermal decomposition of complex cyanides of iron in relation to the catalytic synthesis of ammonia, A., 605.
- Mittasch, A. See also I. G. Farbenind. A.-G.
- Mittenberg, A., elevation in b. p. of saturated solutions at different atmospheric pressures, A., 947.
- evaporating system for salt, B., 856.
- Mitter, B. N. See Ghosh, J. C.
- Mitter, P. C., and Gupta, P., rubiadin. II. Synthesis of 1:3-dihydroxy-2-methylantraquinone, A., 764.

- Mitter, P. C., and Roy, A. C., Michael condensation, A., 508.
 Mitter, P. C., Sen, M., and Paul, P. K., rubiadin. I. Synthesis of 2:4-dihydroxy-1-methylantraquinone, A., 763.
 Mitra, R., effect of electrolytes on the distribution of acetic acid between benzene and water, A., 700.
 Miura, S. See Honda, K.
 Miyaguchi, T., manufacture of ferroboreon and boron-steel, (P.), B., 610*.
 Miyake, E., blood-gases and their relations to the internal secretions of animals kept on a diet deficient in vitamin-A and -B, A., 206.
 Miyake, S., isoelectric points of protamines, A., 585.
 Miyamoto, K. See Nisi, H.
 Miyamoto, S., effect of alkali on oxidation of sodium sulphite with air, A., 26*.
 effect of alkali on oxidation of ferrous hydroxide with air, A., 27*.
 effect of hydrochloric acid on the oxidation of stannous chloride with air, A., 27.
 oxidation of sodium sulphite in sodium carbonate solution with air, A., 598.
 oxidation of stannous hydroxide in sodium carbonate solution by means of air, A., 598.
 dissolution velocity of oxygen in sodium hydroxide, sodium carbonate, and hydrochloric acid solution, A., 699.
 oxidation of the mixture of stannous hydroxide and sodium sulphite in sodium carbonate solution with air, A., 721.
 oxidation of ferrous hydroxide in sodium hydroxide solution by means of air, A., 963.
 Miyazaki, K., equilibrium diagram of the iron-iron sulphide system, A., 1328.
 Miyazaki, K. See also Iwasé, K.
 Mizushima, S., dielectric constants and absorption indices of ethyl alcohol for short electric waves, A., 934.
 Młodziejowski, A., dissociation of liquid crystals, A., 1094.
 Moberg, A. R., and National Aluminate Corporation, treatment of water, (P.), B., 770.
 Moberg, E. G., inter-relation between diatoms, their chemical environment, and upwelling water in the sea, off the coast of Southern California, A., 987.
 Mockridge, F. A., nuclear materials in *Nostoc*, A., 1291.
 Modave, A. See Ateliers J. Hanrez Soc. Anon.
 Modern, F., proteins and acids, A., 127.
 Modern, F. See also Wernicke, R.
 Modersohn, A. See Brand, K.
 Moebius, H. O., and American Miag Corporation, manufacture of cement, (P.), B., 485.
 Moehrlé, E. See Ges. f. Teerwertung m.b.H.
 Möller, H. See Gerstäcker, A.
 Möller, H. A., loss of material of paints by weathering, B., 613.
 Möller, P. See Abderhalden, E.
 Möller, W., and Kreth, W., manufacture of readily soluble salts of hydrofluosilicic acid, (P.), B., 51.
 preparation of solutions of hydrofluosilicic acid, (P.), B., 90.
 Möller-Arnold, E., and Feichtinger, E., effect of different manures on soil of strongly acid reaction; a field experiment, B., 26.
 time of using nitrogenous fertilisers on winter crops, B., 380.
 Moelwyn-Hughes, E. A., kinetics of the hydrolysis of glucosides (salicin, arbutin, and phloidylin), A., 374.
 reactivity of dextrose in hydrochloric acid, A., 374.
 Mönch, G., measurement of the contact potential between metals in a vacuum, A., 467.
 Mörch, J. R., evaluation of thyroid preparations, A., 1404.
 Moers, K. See Blau, F.
 Moes, C., manufacture of paper which possesses properties closely resembling those of hand-made paper, (P.), B., 444.
 Moesveld, A. L. T., and De Meester, (Miss) W. A. T., boundaries of the heterogeneous region of cadmium amalgams, A., 19.
 influence of pressure on reaction velocity and the function of the medium, A., 599.
 Moffett, G. M., and International Patents Development Co., manufacture of starch, (P.), B., 207.
 Moggi, A. See Charrier, G.
 Moglich, F., quantum theory of rotating electrons, A., 811.
 Mohammad, W., and Mathur, S. B. L., fine structure of the spectrum lines of thallium in the ultra-violet, A., 677.
 Mohanlal, K., and Dhar, N. R., state of some sparingly soluble hydroxides in solution in potassium hydroxide and ammonia solutions, as indicated by viscosity measurements, A., 948.
 Mohler, F. L., recombination spectra of atomic ions and electrons, A., 338.
 Mohlman, F. W., Edwards, G. P., and Swope, G., technique and significance of the biochemical oxygen demand determination [of water], B., 318.
 Mohlman, F. W., and Palmer, J. R., ferric salts as coagulants for activated sludge prior to filtration, B., 214.
 Mohorovičić, S., radioactivity and the temperature of the interior of the earth and the moon, A., 41.
 chemical composition of the interior of the earth and the moon, A., 41.
 relativistic interpretation of the theory of fine structure of spectral lines of the hydrogen atom, A., 337.
 Mohrenweiser, C., and Mohrenweiser, J. (Bertram, C.), food preservation, (P.), B., 912.
 Mohrenweiser, J. See Mohrenweiser, C.
 Mohrschulz, W. See Askenasy, P.
 Moir, J., South African flowers, A., 184.
 colour and chemical constitution. XXIII. The pigments of flowers, A., 768.
 detection of cobalt in steel, B., 301.
 Mojert, D. See Jander, G.
 Mokragatz, M., reaction of eserine (physostigmine), A., 1264.
 Mokruschin, S. G., diffusion of methylene-blue in gelatin gels, A., 238.
 surface layer of liquids and the size of molecules, A., 702.
 Mokruschin, S. G., and Krylov, E. J., adsorption of acids by filter-paper. II., A., 118.
 Molchanova, O. P. See Shaternikov, M. N.
 Moldenke, E., and Moldenke Process Corporation, apparatus for treating aluminous materials, (P.), B., 261.
 Moldenke Process Corporation. See Moldenke, E.
 Moles, E., density of sodium azide, A., 697.
 rule of additive volumes, A., 1311.
 Moles, E., and Crespi, M., molecular volume of water in metal salt hydrates, A., 19.
 Moles, E., and Sellés, E., bismuth nitrates, A., 259.
 Molin, L. A., colloid mill, (P.), B., 73.
 Molisch, H., micro-chemistry of plants. XVII. Chromogen of a red colouring matter obtained from cacti, A., 927.
 Moll, F., existence of Volmer's adsorption layer, A., 1183.
 Moll, H., arrangement of the gas and air passages in reverberatory furnaces, (P.), B., 128*.
 Moll Söhne, F. W., apparatus for indicating accumulations of fire-damp in mines, and for preventing explosions therefrom, (P.), B., 44.
 Molle, A. See Counson, L.
 Molodovski, V., oil from mustard seed and husks, B., 902.
 Molybdenum Corporation of America. See Lucas, E. A.
 Molz, E., and Chemische Fabrik L. Meyer, dry fungicide, (P.), B., 870.
 Momoyeda. See Sngimoto.
 Monceaux, R., cystinuria in tuberculosis, A., 322.
 Mondain-Monval, P., physical properties of heterogeneous ternary mixtures, A., 1084.
 Mondain-Monval, P., and Schneider, P., transformation temperature of liquid sulphur into viscous sulphur, A., 479.
 refractive index and specific mass of liquid and of viscous sulphur, A., 696.
 Mondain-Monval, P. See also Dumanois.
 Money, C. P. See Toms, F. W.
 Monger, C. C., and Lyell, J. S. J., treatment of emulsified oils, (P.), B., 326.
 Monier-Williams, G. W., polarimetric determination of sucrose in mixtures of milk and sucrose, B., 939.
 Monk, G. S. See Gale, H. G.
 Monnier, D. See Seyewetz, A.
 Monnot, J. F., [positive plates for] alkaline storage batteries, (P.), B., 864.
 Monosson, A., comparison of the absorptive powers of Russian and other clay, A., 390.
 Monroe, C. F., butter-fat tests on first and later lactations, B., 910.
 Monroe, C. J. See Kaveler, H. H.
 Monroe, G. S. See Faragher, W. F.
 Monroe, K. P., and Du Pont de Nemours & Co., E. I., manufacture of lead tetra-alkyl, (P.), B., 124, 333.
 Monroe, K. P., Williams, K., and Du Pont de Nemours & Co., E. I., manufacture of lead tetra-alkyl, (P.), B., 333.
 Monroe, R. T. See Murphy, W. P.
 Monroe-Louisiana Carbon Co. See Matlock, C.

- Monsanto Chemical Works, catalytic oxidation of organic and inorganic substances, (P.), B., 886.
- Monsanto Chemical Works, Jaeger, A. O., and Bertsch, J. A., [catalyst for] contact sulphuric acid process, (P.), B., 568.
- Monsanto Chemical Works. See also Conover, C.
- Monsson, W. H., pulping of hardwood and mixtures of hardwoods and conifers by the sulphite process, B., 705.
- Montagne, M., action of organo-magnesium compounds on aliphatic dialkylamides, A., 510, 992.
- Montagne, P. See Jolibois, P.
- Montemartini, C., and Losana, L., equilibria between double sulphates and aqueous sulphuric acid. I, A., 703.
- Montgomerie, J. A., bituminous emulsions, (P.), B., 437.
- Montgomery, H. See Redfield, A. C.
- Montgomery, R. J., and Bausch & Lomb Optical Co., optical glass, (P.), B., 749.
- Montignie, E., coloration of alkali thiocyanates on exposure to light, A., 277.
- cholesterol. IV. Different methods of oxidation, A., 518.
- action of ketones on mercuric iodide in presence of alkali, A., 1357.
- Montillon, G. H. See McKee, J. R.
- Montonna, R. E. See Hibbert, H.
- Moog, O., roller grinding mills, (P.), B., 552.
- Mook, H. W. See Backer, H. J.
- Mooney, M., electrophoretic mobility formula, A., 1315.
- Moore, B., combustion of powdered coal, B., 289.
- Moore, B. J., and Campbell, A. J., electrical pottery firing, B., 570.
- Moore, C. W. See Allan, J.
- Moore, E. K. See McLaughlin, G. D.
- Moore, G. See Houston, W. V.
- Moore, H. R., absorption spectrum of mercury at high pressure admixed with nitrogen, A., 680.
- Moore, H. S., and Moore, W. S., gas generators, (P.), B., 594.
- Moore, J. See Allan, H. L.
- Moore, J. J. See Reilly, J.
- Moore, J. W., Polack, W. G., and Castner-Kellner Alkali Co., Ltd., manufacture of ammonium chloride crystals, (P.), B., 482.
- Moore, T., vitamin-A formation; the feeding of etiolated wheat shoots to rats kept in darkness, A., 1058.
- Moore, T. See also Kon, S. K.
- Moore, W. E., and Pittsburg Research Corporation, electric furnace and method of carbonising metallic charges therein, (P.), B., 645.
- Moore, W. S. See Moore, H. S.
- Moore Inventions Corporation, operation of internal-combustion engines and apparatus therefor, (P.), B., 149.
- preparation of charges for combustion in internal-combustion engines, (P.), B., 394.
- Moorhouse, L. B., generation of water-gas, (P.), B., 513.
- Moormann, T. A., and Kinite Corporation, manufacture of a steel alloy, (P.), B., 269.
- Moorshead, T. C. See United Glass Bottle Manufs., Ltd.
- Moos, M. von, Oberhoffer, P., and Oertel, W., recrystallisation of transformer steel, B., 335.
- Moos, M. von, Oertel, W., and Scherer, R., annealing transformer sheet [iron], B., 407.
- Moran, R. C., and Vacuum Oil Co., purification of petroleum oils for removal of sulphonated compounds, (P.), B., 326.
- Morani, V., [natural occurrence of inactive camphor] phenyl- and α -naphthyl-carbamylhydrazones [-semicarbazones] of inactive camphor, A., 1018.
- Moravek, V. See MacDougal, D. T.
- Moraw, H. O., ephedrine assays by titration, B., 545.
- Morden, G. W., manufacture of cellulose acetate, (P.), B., 810.
- Mordkin, V. See Zaleski, V.
- Moreau, L., and Vinet, E., sulphurous acid in wine manufacture, B., 462.
- Morehouse, W. B., X-ray absorption and valency, A., 1296.
- Morel, A., and Preceptis, P., reciprocal action of picric acid and cycloglycylglycine, A., 993.
- interaction of picric acid and 2:5-diketopiperazine, A., 998.
- Morel, A., Preceptis, P., and Galy, A., action of picric acid on glycylglycine, A., 993.
- Morel, A., and Sisley, P., azo-derivatives of tyrosine, A., 1129.
- aminofibroin, A., 1363.
- Morel, A., and Velluz, L., biochemical synthesis of glycerides; reversibility of enzymic action of the cytoplasm of the castor-bean, A., 328.
- Morera, V. See Ithurrat, E. M. F.
- Moretti, H., hypoglycæmic action of ergotamine in diabetes, A., 199.
- Morf, A. See Briner, E.
- Morgan, A. G. See Davies, A. R.
- Morgan, G. T., and Burgess, H., cyclotelluropentane, A., 435.
- tellurium compounds for germicidal and therapeutic purposes, (P.), B., 624.
- Morgan, G. T., and Burstall, F. H., residual affinity and co-ordination. XXX. Complex ethylenethiocarbamido-salts of univalent and bivalent metals, A., 278.
- Morgan, G. T., and Pratt, D. D., [constituents of low-temperature tar], B., 250.
- Morgan, G. T., Taylor, R., and Hedley, T. J., syntheses under high pressure; interaction of carbon monoxide and hydrogen, B., 439.
- Morgan, J. G. Y. D. See Bendixen, N.
- Morgan, J. S., and Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd., heat-treatment of substances by means of molten metal, (P.), B., 734*.
- Morgan, S. O. See Smyth, C. P.
- Morgan, W. A., and Woodruff, J. G., pimento for colouring egg-yolks, B., 346.
- Morgan, W. H., and Morgan, W. H., jun., preparation of sugar cane for extracting juice from cane stalks, (P.), B., 137*.
- Morgan, W. H., jun. See Morgan, W. H.
- Morgan, W. T. J., and Robison, R., constitution of hexosedi-phosphoric acid. II. Dephosphorylated α - and β -methyl-hexosides, A., 1214.
- Morgan, W. T. J. See also Robison, R.
- Morgan Construction Co. See Lumms, C. W.
- Morgan & Wright. See Cadwell, S. M.
- Morgenroth, K. See Fischer, Hans.
- Morgulis, S., changes in blood during fasting and subsequent refedding. II. A., 667.
- sulphur metabolism and partition of sulphur in the urine of fasting dogs, A., 792.
- Morgulis, S., and Beber, M., effect of temperature on catalase reaction. VI. Heat-inactivation of catalase at different p_H , A., 671.
- Morgulis, S., and Perley, A., determination of potassium, A., 725.
- Mori, K., influence of thyroid and insulin on the oxidases of various organs, A., 553.
- Mori, M. See Fernbach, A.
- Mori, S., decomposition of caseinogen by trypsin, A., 446.
- decomposition of urea by urease, A., 446.
- applicability of the quinhydrone electrode and its biological uses, A., 564.
- Mori, T. See Levene, P. A.
- Moriarty, J. J. See Gutta Percha & Rubber, Ltd.
- Morimura, S. See Ichimi, T.
- Morin, H., tanning of white leather, (P.), B., 133.
- Morisawa, O. See Sawai, I.
- Morosov, A. See Brachmann, G.
- Morrell, J. C., and Bergman, D. J., designing equipment for chemical treatment of oil distillates, B., 435, 558.
- operating a continuous plant for refining [petroleum] distillates, B., 558.
- Morrell, J. C. See also Faragher, W. F.
- Morrell, R. S., and Wornum, W. E., colloid chemistry of paints, varnishes, and their components, B., 456.
- Morris, E. See Wilder, F. L.
- Morris, F. H., and Whitman, W. G., heat transfer for oils and water in pipes, B., 351.
- Morris, G. See Nobel's Explosives Co., Ltd.
- Morris, H. N. See Allman, P.
- Morris, J. C., jun., comparison of measurements of critical potentials of mercury vapour, A., 1167.
- ionising potentials of methane, ethane, ethylene, and acetylene, A., 1172.
- Morris, V. N., and Reyerson, L. H., catalytic hydrogenation of carbon oxides, A., 488.
- Morris Motors (1926), Ltd., Richardson, J. A., and Smart, R. A., [electrically-heated apparatus for] case-hardening or malleabilising iron or steel articles, (P.), B., 645.
- Morrison, C. G. T. See Ellis, J. C. B.
- Morrison, D. B. See Myers, V. C.
- Morrison, D. M., formation of a gaseous helide of radium active deposit, A., 684.
- Morrison, F. R. See Penfold, A. R.

- Morrison, G. See Luck, J. M.
- Morrison, J. F., and Cameron, A. E., impact resistance of steels at low temperatures, B., 486.
- Morrison, M. E. See Raydin, I. S.
- Morrison, R. R., Peacock, P. R., and Wright, S., action of X-radiation on vitamin-D in activated ergosterol, A., 1161.
- Morrison, W., electrolytic rectifier, (P.), B., 60.
- Morrison, W. M., and American Smelting & Refining Co., filtering device, (P.), B., 697.
- Morrow, R. M., diffraction of X-rays in liquid normal mono-basic fatty acids, A., 224.
- Morse, F. W., iodine content of Cape Cod cranberries, A., 1407.
- Morse, F. W., relation between water and potash in plant production, B., 239.
- Morse, J. K., structure and dimensions of the benzene ring, A., 222.
- Morse, J. K., lattice structure of ethane, A., 351.
- Morse, J. K., structure and dimensions of the ethane molecule, A., 351.
- Morse, J. K., molecular structures of methane, A., 461.
- Morse, J. K., structure of acetylene, A., 1176.
- Morse, P. M., theory of the electric discharge through gases, A., 807.
- Morse, P. M., and Uytendoeve, W., ionisation in positive-ion sheaths, A., 683.
- Morse, R. B., Hechmer, C. A., and Powell, S. T., coagulation studies [in water purification] at the Washington suburban sanitary district, B., 174.
- Morse, S. See Fricke, H.
- Mortensen, F. C. See Raiford, L. C.
- Mortensen, H. See Blanck, E.
- Mortimer, B. See Harkins, W. D.
- Mortimer, F. S., Hess, R. W., and National Aniline & Chemical Co., Inc., purification of N-alkylcarbazoles, (P.), B., 739.
- Morton, A. A. See Norris, J. F.
- Morton, C., dilution and neutral salt errors of buffer mixtures, A., 840.
- Morton, E. A. See Courtauld, Ltd.
- Morton, F., manufacture of paving material, (P.), B., 335.
- Morton, F., materials for making tile, slabs, road surfaces, (P.), B., 817.
- Morton, F., manufacture of materials for use in making or repairing roads and other surfaces, (P.), B., 896.
- Morton, J., manufacture of colour-printed fabrics, (P.), B., 601.
- Morton, R. A., and Heilbron, I. M., absorption spectrum of vitamin-A, A., 813, 1058.
- Morton, R. A. See also Brode, W. R., Gillam, A. E., and Heilbron, I. M.
- Morton, W. A., and Amsler-Morton Co., recuperator, (P.), B., 72.
- Morville, F., and Défossez, (Mlle.), determination of benzaldehyde in cherry laurel water, B., 315.
- Mosby, D. H. See Forster, R. B.
- Moschel, W. See I. G. Farbenind. A.-G.
- Moschini, A., metabolism of animals after [administration of] synthalin, A., 1052.
- Moser, H., quick and slow decay of luminescence of phosphors of various types of atoms, A., 576.
- Moser, H., and Wernli, A., excretion of fat in the urine after cutaneous absorption, A., 914.
- Moser, L., and Brukl, A., determination and separation of rare metals from other metals. XI. Quantitative analysis of gallium. I., A., 1347.
- Moser, L., and Singer, J., determination of rare metals and separation from other metals. X. Three new gravimetric determinations of beryllium, and separations depending thereon, A., 145.
- Moser, O., and Verein für Chemische Industrie Akt.-Ges., extraction of guaiacol, (P.), B., 151.
- Moses, E. Q. See Iserman, S.
- Mosettig, E., action of diazomethane on piperonal, A., 887.
- Mosettig, E. See also Gadamer, J.
- Moskey, H. E. See Henley, R. R.
- Moskowitz, M. See Ebert, C.
- Moss, E. G., McMurtrey, J. E., Lunn, W. M., and Carr, J. M., fertiliser tests with fuel-cured tobacco, B., 584.
- Moss, H. W. See British Dyestuffs Corporation, Ltd.
- Moss, J., and Moss, J. W., ovens or kilns for firing tiles, bricks, etc., (P.), B., 405.
- Moss, J. W. See Moss, J.
- Moss, (Miss) R. N. See Davies, (Miss) A. C.
- Moths, K., nitrogen metabolism of the *Conifera*, A., 93.
- Motshmann, O. See I. G. Farbenind. A.-G.
- Mott, C., and Purox Co., production of a cartridge for use with liquid oxygen, (P.), B., 173.
- Mott, R. A., progress in research on the properties of coke for blast-furnace use, B., 322.
- Mott, R. A., and Shimmura, T., coko formation. II., B., 916.
- Mottram, E. N. See Lapworth, A.
- Mottram, J. C., carbon dioxide tension in tissues in relation to cancerous cells, A., 441.
- Mottram, V. H. See Clifford, W. M.
- Motzkus, E. See Schmitz-Dumont, O.
- Moubis, G. See Clausen, P.
- Moudgill, K. L., essential oils of Travancore. VII. Oil from rhizome of ginger, *Zingiber officinale*, B., 691.
- Mougeot, A., and Aubertot, V., zymosthenic action of mineral waters on liver catalase, A., 201.
- Mougey, H. C., sulphur in gasoline from the automobile point of view, B., 179.
- Moulden, J. C., Taplin, B., and Metals Production Co. of North America, Inc., heat-treatment and concentration of copper ores, (P.), B., 716*.
- Mounier, D. See Seyewetz, A.
- Mount, W. D., causticising unit, (P.), B., 894*.
- Moureu, C., and Chauv, R., [preparation of] β -chloropropionic acid, A., 617.
- Moureu, C., and Dufraisse, C., dissociation of rubrene peroxide, A., 53.
- Moureu, C., and Dufraisse, C., autoxidation and antioxygenic action; theory of the mechanism of the catalysis of autoxidation, A., 251.
- Moureu, C., and Dufraisse, C., theory of autoxidation and antioxygenic action, A., 251.
- Moureu, C., Dufraisse, C., and Badoche, M., autoxidation and antioxygenic action; catalytic properties of phosphorus, A., 849, 967.
- Moureu, C., Dufraisse, C., and Berchet, G., rubrene: ψ -rubrene, A., 53.
- Moureu, C., and Dufraisse, C., autoxidation and antioxygenic action. XXX. Autoxidation and polymerisation of chloral: action of light. XXXI. Autoxidation and polymerisation of chloral: action of various catalysts, A., 1196.
- Moureu, C., Dufraisse, C., and Enderlin, L., rubrene; constitution of rubrene, A., 1127.
- Moureu, C., Dufraisse, C., and Girard, L., rubrene. VII. Dissociation pressure of rubrene peroxide at the ordinary temperature, A., 594.
- Moureu, C., Dufraisse, C., and Johnson, J. R., autoxidation and antioxygenic action. XXVII. Action of different catalysts on the autoxidation of furethylene, A., 718.
- Moureu, C., Dufraisse, C., and Willemart, A., coloured rubrene hydrocarbons, A., 996.
- Moureu, H., tautomerism of α -diketones; constitution of the two forms of benzylmethylglyoxal, A., 419.
- Moureu, H., tautomerism of α -diketones; two forms of benzylmethylglyoxal and their reversible transformation, A., 419.
- Moureu, H., catalytic phenomena in the tautomerism of certain α -diketones, A., 1334.
- Moureu, H. See also Dufraisse, C.
- Mourgeon, L., apparatus for washing and purifying gases, (P.), B., 112.
- Mourlaque, G. A., manufacture of hydrogen, (P.), B., 927.
- Mouromtsev, B. See Ipatiev, V. N., and Vrevski, M. S.
- Mousseron, M. See Canals, E.
- Mowat, J. H., mechanical [paper] pulp and its physical property of wetness, B., 11.
- Moye, proteolytic enzymes from bacteria; influence of p_H on proteolysis, A., 1402.
- Moyer, E. L. See Chappell, M. L.
- Moyer, H. V., and Dains, F. B., replaceability of certain methylene groups and relation of constitution of stability of a C:C linking, A., 1141.
- Moyer, M. L., Moyer, M. L., Prindle, E. J., and Stoughton, B., manufacture of a metal-treating compound, (P.), B., 304.
- Mozolowski, W., and Lewinski, W., ammonia content and formation in muscle and its relationship to function and changes of condition. IV., A., 198.
- Mozolowski, W. See also Chrzasczewski, S., and Parnas, J. K.
- Mrasek, C., determination of ash in raw [beet] sugars, B., 30.
- Mrasek, C., bone charcoal and active vegetable carbons [in sugar refining], B., 345.
- Mrozowski, S., band fluorescence of mercury vapour, A., 1304.
- Much, H., lipin metabolism and constitution, A., 323.

- Muchenberger, K., *sen.*, [alloy for] bells, (P.), B., 575.
 Muchka, J., sterilisation of water, (P.), B., 694.
 water-purifying apparatus, (P.), B., 770.
 Mudd, J. S., causes of drawn grain on chrome upper leathers, B., 379.
 Mudd, J. S. See also Chater, W. J.
 Mudge, C. S., and Lawler, B. M., effect of alkali solutions on bacteria found in unwashed milk bottles, B., 726.
 Mückenberger, C., production of ammonium phosphates from secondary and tertiary calcium phosphates, B., 297.
 Mügge, O., kaliophylite, A., 390.
 Mühlbradt, K., calculation of the combustion temperature in blast furnaces, B., 94.
 Mühlendahl, E. von, sucrose solution for the calibration of viscosimeters, A., 40.
 Müller, Adolf, preparation of $\alpha\delta$ -dihydroxy-*n*-butano (tetramethyleneglycol) and $\alpha\delta$ -dibromo-*n*-butane, A., 734.
 Müller, Adolf [with Clostermeyer, H.], oxidation of *N*-benzoyl-hexamethyleneimine, A., 527.
 Müller, Adolf, and Bibus, B., autogenous welding with coal gas, B., 676.
 Müller, Adolf, and Rölz, E., preparation of $\alpha\eta$ -dihydroxyheptane (heptamethylene glycol) and $\alpha\eta$ -dibromo-*n*-propane, A., 270.
 action of $\alpha\zeta$ -di-iodo-*n*-hexane on amines, A., 527.
 Müller, Adolf, and Sauerwald, A., synthesis of $\alpha\zeta$ -dibromo-*n*-hexane and its action on *p*-toluenesulphonamide, A., 43.
 synthesis and purification of hexamethyleneimine, A., 277.
 behaviour of aluminium triethyl with nickel catalyst at high temperatures, A., 279.
 Müller, Adolf, Urbach, F., and Blank, F., production of colloidal gold and platinum in phosphoric acids, A., 473.
 Müller, Alex., X-ray investigation of long-chain compounds, A., 1176.
 Müller, Alexander. See Hess, K.
 Müller, Anton, miscibility-gap in molten iron-copper alloys, A., 357.
 Müller, A. E. J., technical production of sodium fluoride, B., 156.
 Mueller, B., detection of dried saliva on cloth, A., 1394.
 Müller, C. See I. G. Farbenind. A.-G.
 Müller, O. A. See Bardenheuer, P.
 Müller, C. E. See Daimler, K., and Fischer, E.
 Müller, C. J. See Fischer, K.
 Müller, D., new enzyme, glucose-oxidase. I., A., 1291.
 Mueller, D. W. See Becker, J. A.
 Müller, E. See Sievers, H.
 Müller, Emil. See Baur, Emil.
 Müller, Erich, mechanism of hydrogen-ion catalysis, A., 848.
 Müller, Erich [with Hindemith, G.], electrolytic oxidation of formic acid, A., 377.
 Müller, Erich, and Dietmann, H., determination of hypochlorous and chlorous acids, especially by potentiometric methods, A., 497.
 Müller, Erich, and Görne, J., potentiometric stannometry, A., 727.
 Müller, Erich, and Hentschel, H., rapid potentiometric determination of silver and zinc in the same solution, A., 37.
 Müller, Erich, and Kogert, H., potentiometric titration using monometallic electrode pairs, A., 1203.
 two new potentiometric titration methods, A., 1203.
 Müller, Erich, and Müller, Friedrich, determination of the free acidity of solutions of heavy metal salts, A., 386.
 Müller, Erich, and Prée, W., rapid potentiometric determination of lead and cadmium in the same solution, A., 38.
 Müller, Erich, and Schwabe, K., catalytic decomposition and oxidation of formic acid, A., 488.
 Müller, Erich, and Takegami, S., potentiometric determination of copper with ferrocyanide, A., 499.
 electrolytic oxidation of formaldehyde in alkaline solution, A., 1338.
 Müller, Erich, and Tanaka, S., periodic electrolytic oxidation of formic acid, A., 720.
 Müller, Erich, and Weisbrod, F., potentiometric determination of gold, A., 388.
 Müller, E. L. See Sieverts, A.
 Müller, F., synthesis of ammonia under high pressure, B., 332.
 Müller, F. See also Siemens-Schuckertwerke Ges.m.b.H.
 Müller, Friedrich, potentiometric indication in the formation of azo-dyes, A., 485.
 anomalies of the *E.M.F.* relationships of palladium in hydrogen chloride solutions, A., 713.
 Müller, Friedrich [with Schwab, H.], anodic oxidation of free propionic acid, A., 377.
 Müller, Friedrich. See also Müller, E.
 Müller, Fritz, and Chemische Fabrik vorm. Sandoz, pharmaceutical product, (P.), B., 285.
 Müller, H., excess air in gas heating, B., 917.
 Müller, H. See also Felix, K.
 Müller, Hans, activity coefficients of small ions, A., 590.
 activity of univalent ions, A., 1327.
 general theory of rapid coagulation; coagulation of rod-like and plate-like colloids; theory of general polydisperse systems and streaming coagulation, A., 1322.
 Müller, Helmut, analysis of nitrogenous compounds, A., 82.
 Müller, Helmut, and Reinwein, H., sputum. II., A., 1049.
 Müller, Hermann, and Aktien-Gesellschaft Clander, production of pattern effects in fabrics, (P.), B., 365.
 Mueller, H. A. See Aktiebolaget Ferriconcentrat.
 Müller, K., production of synthetic ammonia, (P.), B., 190.
 Müller, Karl. See Jost, F.
 Müller, P. See Gay.
 Müller, Philipp. See Mayer, Fritz.
 Müller, R. See Schorn, H.
 Müller, Robert (Graz), and Kumpfmiller, H., electrochemical behaviour of acetylene, A., 481.
 Müller, Robert, Raschka, V., and Wittmann, M., electrochemistry of non-aqueous solutions. VIII. Conductivity of dilute organic solutions of silver nitrate, silver thiocyanate, and lithium bromide, A., 135.
 Müller, Robert (Wien). See Lieben, F.
 Müller, Rudolf. See Komm, E.
 Müller, R. H., and Partridge, H. M., application of the photo-electric cell to automatic titrations, A., 606.
 Müller, W. See Spengler, O.
 Müller, Walter. See Riess, G.
 Müller, Walther. See Geiger, H.
 Müller, W. J., current density-potential curves and time phenomena in the passivation of various metals, A., 135.
 passivity of metals, A., 1319.
 Müller, W. J., and Konopicky, K., theory of passivity. I. Theory of polarisation by anodic deposition and passivation of metals, A., 247.
 Müller, W. J., and Löwy, O., theory of passivity. II. Relation between passivation current density and time, A., 713.
 Müller, W. J. See also I. G. Farbenind. A.-G.
 Müller-Cunrad, M. See I. G. Farbenind. A.-G.
 Müller-Magdeburg, A., iron-cyanogen colours, in particular Milori blue, B., 164.
 Münch, E. See I. G. Farbenind. A.-G.
 Muench, O. B. See Germann, F. E. E.
 Münch, W. See Braun, J. von.
 Münter, F., report of the Agricultural Research Station at Halle, B., 905.
 Münzer, K., improved Orsat apparatus for the analysis of flue gases, B., 733.
 Muer, H. F., and Hale, F. E., colorimetric pH determinations [of water] in a neutral atmosphere, B., 318.
 Mürset, R., nickel-plating of aluminium articles, (P.), B., 575.
 Mütschelle, R., apparatus for generating acetylene under pressure, (P.), B., 117.
 Mugdan, M. See Baum, E., and Consort. für elektrochem. Ind. G.m.b.H.
 Muhlauer, F. See Hieber, W.
 Muhleman, G. W., separation of the α -amino-acids resulting from the hydrolysis of proteins, A., 874.
 Muhlenberg, F. B. See Walter, C. A.
 Muic, N. See Plotnikov, J.
 Muir, D., low-temperature carbonisation [Illingworth plant], B., 840.
 Muir, J., yield point in steel at various temperatures, B., 300.
 Mukerjee, B. C., determination of manganese in steel by the Proctor-Smith reaction in presence of phosphoric acid, B., 94.
 Mukerji, B. K., and Dhar, N. R., "after-effect" in certain photochemical reactions. II., A., 720.
 influence of the intensity of incident light on the velocity of some photochemical reactions, A., 1198.
 mechanism of photosensitisation and photoinhibition from the point of view of absorption spectra, A., 1198.
 Mukherjee, A. See Mukherjee, J. N.
 Mukherjee, J. See Ghosh, J. C.
 Mukherjee, J. N., theory of electrical migration of ions, A., 1192.

- Mukherjee, J. N., Basu, J. K., and Mukherjee, A., adsorption by polar precipitates. IV. Further experiments with silver salts, A., 13.
- Mukherjee, J. N., Chaudhury, S. G., and Choudhuri, S. P. R., variation of the charge of colloidal particles. II. Effect of dilution and of non-electrolytes on the charge and its variation with concentration of electrolytes, A., 15.
- Mukoyama, T., colloid chemistry of viscose solutions. VII. Modification of Hottenroth's method for determining "ripeness," B., 34.
- viscose. VIII. Effect of dialysis in relation to viscosity, B., 743.
- turbidity and gelatinisation of viscose caused by addition of chemicals, B., 851.
- Mulder, C. H. K. See Backer, H. J.
- Mull, J. W. See Myers, V. C.
- Mullen, D. B. See Read, R. R.
- Mullen, G. W. See Anchor Cap and Closure Corporation.
- Muller, E., continuous manufacture of cellulosic materials, (P.), B., 706.
- process for continuously drying cellulosic materials, (P.), B., 706.
- Muller, R. H. See Beaver, J. J.
- Mulligan, M. J., and Ferguson, J. B., electrochemical behaviour of glass, A., 245.
- Mulligan, M. J., Ferguson, J. B., and Rebbeck, J. W., electrochemical behaviour of silicate glasses. III. Cathode and anode gases. IV. Solid electrolytic deposits, A., 713.
- Mulligan, M. J. See also Ferguson, J. B.
- Mulligan, P. C., Hull, L. J., and Foster, I. M., briquetting [of fuel], (P.), B., 804.
- Mulliken, R. S., electronic states and band spectrum structure in diatomic molecules. VI. Theory of intensity relations for case *b* doublet states; interpretation of CH bands, 3900, 4300 Å., A., 105.
- assignment of quantum numbers for electrons in molecules. I., A., 1067.
- interpretation of the atmospheric oxygen bands; electronic levels of the oxygen molecule, A., 1165.
- electronic states and band spectrum structure in diatomic molecules. VII. $^2P \rightarrow ^2S$ and $^2S \rightarrow ^2P$ transitions, A., 1166.
- intensity relations and band structure in bands of the violet CN type, A., 1307.
- band structure and intensities, atomic and molecular electronic states, in diatomic hydrides, A., 1308.
- Mullins, G. M. See Coleman, G. H.
- Multer, H. J. See Gard, E. W.
- Mumford, S. A., and Phillips, J. W. C., chlorination products of $\beta\beta'$ -dichlorodiethyl sulphide, A., 271.
- Munch, J. C., and Bidwell, G. L., what constitutes an adequate sample? B., 505.
- Munch, J. C., and Gittinger, G. S., formula for calculating composition of mixtures of mydriatic alkaloids, B., 943.
- Munch-Petersen, C. J., carbohydrate changes in epilepsy, A., 1395.
- Munford, T. W., and Mantle Engineering Co., heat-exchange apparatus, (P.), B., 696.
- Munger, S., and Peterson, W. H., manganese content of raw and cooked vegetables, B., 586.
- Munitex Corporation. See Leemann, H.
- Munning & Co., A. P., manufacture of anodes, (P.), B., 98.
- Munro, A. M., and Wilson, F. J., reactions of carbonylhydrazide. II., A., 774.
- Munro, L. A., molybdenum-blue, its properties and composition, B., 640.
- Munro, L. A., and Binnington, D. S., extractor for the preparation of oat and other cereal oils, B., 375.
- Munsell, H. E., and Black, H., assay of a so-called cod-liver oil extract for vitamin-A content and calcifying properties compared to cod-liver oil, B., 284.
- Munters, C. G. See Electrolux, Ltd.
- Muntwyler, E. See Gatewood, W. E., Myers, V. C., and Wenner, W. F.
- Muntyan, A. B., and Fischer, G. E., electrolytic rectifier, (P.), B., 305.
- Munzert, H., yellowing of white enamels, B., 719.
- Murakami, S., and Robinson, R., synthesis of pyrylium salts of anthocyanidin type. XVII. Synthesis of peonidin chloride by means of *O*-benzoylphloroglucinaldehyde, A., 894.
- Murakami, T., stepped lowering of the Al transformation in steels, B., 300.
- resistivity of chromium-plated metals to the action of chemical reagents, B., 676.
- Murakami, T. See also Kato, Y.
- Murakami, Y., [blast furnace for] smelting of iron ores, (P.), B., 127.
- Murakoshi, S. See Tsurumi, S.
- Muraour, H., detection and colorimetric determination of nitro-toluene in nitrobenzene, A., 279.
- laws of combustion of colloidal [explosive] powders, B., 141, 770.
- relation between temperature of explosion of a powder and its rate of combustion, B., 693.
- decomposition of [propellant] powders and explosives, and the theory of stabilisers, B., 914.
- Murata, K., electrical conductance of nickel sulphate solution and ionic conductance of nickel, A., 595, 845*.
- electrode potential of nickel. I. Measurements in an atmosphere of hydrogen with reduced nickel powder, A., 596, 846*.
- Murata, K. See also Fuseya, G.
- Murejeva, A. See Dobrzański, A.
- Murlin, J. R., preparation of anti-diabetic material from pancreas, (P.), B., 69.
- Murphy, A. J., and Murphy & Son, Ltd., clarification of beer, vinegar, and other like liquids, (P.), B., 424.
- Murphy, A. J. See also Gough, H. J.
- Murphy, E. A. See Dunlop Rubber Co., Ltd.
- Murphy, H. F. See Harper, H. J.
- Murphy, J. C. See Jones, D. B.
- Murphy, R. M. See McDowell, S. J.
- Murphy, W. P., Monroe, R. T., and Fitz, R., changes in composition of blood in pernicious anaemia treated by a diet rich in liver, A., 1273.
- Murphy & Son, Ltd. See Murphy, A. J.
- Murray, A. See Beebe, M. C.
- Murray, A. G. See Kipping, F. S.
- Murray, G. W., jun. See Rice, E. W.
- Murray, H. A., jun. See Thomas, A. W.
- Murray, H. D., conductivity of copper hydrosols, A., 704.
- Murray, M. M. See Edkins, N.
- Murray, T. E., protection of ferrous metals against corrosion, (P.), B., 372.
- Murray-Rust, O. M. See Woolcock, J. W.
- Mursch, J., and Buffalo Hammer Mill Corporation, grinding mill, (P.), B., 657.
- Musag Gesellschaft für den Bau von Müll- & Schlacken-Verwertungsanlagen, Akt.-Ges., and Grote, A., transformation of slag-forming waste materials (such as domestic or industrial refuse, gutter residues, etc.) into slag-sand of various grain-size, (P.), B., 485.
- Musatti, I., and Volterra, R., testing of transformer oils, B., 804.
- Muschel, A., fractionation of serum-proteins by ammonium sulphate, A., 1150.
- Musgrave, J. W., and Coe, D. C., influence of fertiliser treatments on maturity and yield of cotton, B., 497.
- Musierowicz, A. See Zolciński, J.
- Musierowski, A., Niementowski, S., and Tomasik, Z., condensation of *o*-aminobenzaldehyde with 1-phenyl-3-methyl-5-pyrazolone and with 1-*o*-chlorophenyl-3-methyl-5-pyrazolone, A., 1142.
- Mussehl, F. E., Blish, M. J., and Ackerson, C. W., mineral metabolism of the growing chick, A., 1153.
- Mussnug, F. See Gossner, B.
- Muth, F. See Ballauf, F., and Heiduschka, A.
- Muth, G., manufacture of aluminium compounds, (P.), B., 298*.
- Mutteleit, C. F., apple juice in "pure fruit" conserves (cherries and strawberries), B., 105.
- acidity in fruit juices and preserves, B., 463.
- Mutti, I., and Basini, M., behaviour of permutit in the softening of waters for industrial use, B., 914.
- Mutti, I., and Reginelli, C., use of permutite for the purification of [beet] sugar juices, B., 620.
- Mutti, I. See also Mezzadrolì, G.
- Myers, P. B., and Baker, G. L., mechanism of buffer action in soils, B., 102.
- fruit jellies, B., 105.
- fruit jellies. V. Role of pectin. I. Viscosity and jellyfying properties of pectin solutions, B., 138.

- Myers, R. E., and Westinghouse Lamp Co., evacuated [electron-discharge] device and method of exhaust, (P.), B., 22.
- Myers, V. C., and Killian, J. A., solubility in stomach and duodenum of aluminium compounds found in baking powder residues, A., 1155.
- Myers, V. C., and Morrison, D. B., influence of aluminium on dogs, A., 1155.
- Myers, V. C., and Mull, J. W., influence of administration of aluminium on aluminium content of tissues and on growth and reproduction in rats, A., 1155.
- aluminium content of human autopsy tissue, A., 1155.
- Myers, V. C., Mull, J. W., and Morrison, D. B., determination of aluminium in animal tissues, A., 1155.
- Myers, V. C., and Muntwyler, E., colorimetric determination of p_H of urine and of blood, A., 911.
- Myers, V. C., and Wardell, E. L., influence of ingestion of methyl-xanthenes on excretion of uric acid, A., 794.
- Myers, V. C. See also Gatewood, W. E., and O'Brien, C. S.
- Myles Salt Co., Ltd. See Benjamin, E. V.
- Myrbäck, K., co-zyrnase and its determination, A., 1284.
- Myrbäck, K., Euler, H. von, and Sandberg, E., aldehyde-mutation of acetic bacteria, A., 924.
- Myrbäck, K. See also Euler, H. von.
- Myssowski, L., and Tuvim, L., absorption in lead, secondary rays, and wave-length of penetrating radiation, A., 1070.
- Mystkowski, E. M., influence of ions on action of urease, A., 1401.
- Mzourek, J., determination of asphaltum in oils containing paraffin, B., 468.

N.

- Naamlooze Vennootschap Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
- Naamlooze Vennootschap Bouwonderneming Ketabang IV., manufacture of artificial silk threads, (P.), B., 478.
- Naamlooze Vennootschap Chemische Fabriek "Delta," process for obtaining alkaloids, (P.), B., 943.
- Naamlooze Vennootschap Handelmaatschappij Feriron. See Levoz, T.
- Naamlooze Vennootschap Handelmaatschappij "Fibra," production of wood pulp, (P.), B., 155.
- Naamlooze Vennootschap Internationale Oxygenium Maatschappij "Novadel," and Kroeber, T., manufacture of acyl peroxides, (P.), B., 597.
- Naamlooze Vennootschap Koninklijke Stearine Kaarsenfabriek Gouda, manufacture of asphalt concrete, (P.), B., 334.
- Naamlooze Vennootschap Kunstzijdefabriek. See also British Enka Artificial Silk Co. Ltd., and Jansen, H. J. J.
- Naamlooze Vennootschap Mij tot Beheer en Exploit. van Octrooien, and Reis, L. von, production of sheet glass, (P.), B., 265.
- Naamlooze Vennootschap Nederlandsche Bims-Cement-en Asphalt-ind., preparation of artificial asphalt material from the natural constituents of mineral asphalt, (P.), B., 93.
- Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek, manufacture of artificial silk, etc. by the dry or evaporative method, (P.), B., 564.
- manufacture of hollow viscose fibres, (P.), B., 600.
- production of partially hydrolysed cellulose acetates and of products such as threads, films, lacquers, etc. therefrom, (P.), B., 637.
- preparing [viscose] artificial silk with special mechanical properties, (P.), B., 706.
- preparation of artificial silk with special mechanical properties, (P.), B., 782.
- spinning bowls or boxes, particularly for artificial silk, (P.), B., 889.
- Naamlooze Vennootschap Nederlandsche Mijnbouw en Handel Maatschappij, manufacture of a highly active alkaline coke, (P.), B., 180.
- Naamlooze Vennootschap Octrooi Maatschappij "Védé." See Diggelen, J. C. M. van.
- Naamlooze Vennootschap Philips' Gloeilampenfabrieken, coating a body with platinum, (P.), B., 96.
- enamelled wires, (P.), B., 373.
- soldering of metals or metal alloys, (P.), B., 489.
- manufacture of electric resistances, (P.), B., 577.

- Naamlooze Vennootschap Philips' Gloeilampenfabrieken, gas-filled electric discharge tube, (P.), B., 760.
- gas-filled electric incandescence lamps [with concentrated filaments], (P.), B., 791.
- electric incandescence lamps with concentrated filaments, (P.), B., 824.
- manufacture of incandescence cathodes for electric discharge devices, (P.), B., 900.
- electric incandescence [projection] lamp, (P.), B., 901.
- vacuum tube, (P.), B., 933.
- incandescence-cathode discharge tube, (P.), B., 934.
- Naamlooze Vennootschap Philips' Gloeilampenfabrieken, and De Groot, W., gas-filled discharge tubes, (P.), B., 933.
- Naamlooze Vennootschap Philips' Gloeilampenfabrieken, and Hertz, G. L., gas-filled discharge tubes, (P.), B., 933.
- Naamlooze Vennootschap Philips' Gloeilampenfabrieken. See also Arkel, A. E. van, and De Boer, J. H.
- Naamlooze Vennootschap Silica en Ovenbouw Mij., [sub-heated] coke ovens, (P.), B., 251.
- Naamlooze Vennootschap Silica en Ovenbouw Mij., and Hiby, W., utilisation of heat contained in coke discharged from coke ovens, gas retorts, etc., (P.), B., 918.
- Naamlooze Vennootschap Silica en Ovenbouw Mij., and Otto & Co. G.m.b.H., coke ovens, (P.), B., 325.
- regenerative coke ovens, (P.), B., 737.
- Nabell, H. von, differentiation of [vegetable] oils by P. Jägor's "flow method," B., 577.
- Nabenhauer, F. P. See Anderson, R. J.
- Nachmansohn, D., decomposition of creatine-phosphoric acid in relation to the activity of muscle. I., A., 917.
- Nachmansohn, D. See also Meyerhof, O.
- Nachod, H. See Patent Treuhand Ges. f. elektr. Glühlampen.
- Nádai, A., denitration in artificial silk manufacture, A., 1187.
- Nádor-Nikitits, S. von, determination of globulin in cerebrospinal fluid, A., 542.
- Naef, M., and Firmenich, F., preparation of monocyclic ketones, having more than nine ring members, and of their alkyl derivatives, (P.), B., 36.
- Naef & Co., M. See Ruzicka, L.
- Naegeli, C., and Stefanovitch, G., degradation of high-molecular unsaturated acids; degradation of chaulmoogric acid to homohydnocarpylamine; modified Curtius reaction, A., 881.
- Nähring, E. See Krüger, F.
- Naess, G. B. See Hassel, O.
- Nagai, Y., effect of anti-knock materials on the limits of inflammability of ethyl ether and hydrocarbons, A., 372.
- effect of anti-knock materials on the condenser-discharge-spark energy required to ignite a mixture of air with the vapour of ethyl ether, A., 372.
- Nagai, Y., and Furihata, M., least energy required to ignite mixtures of air and ethyl ether vapour, A., 847*.
- effect of ethyl bromide on the least energy required to ignite mixtures of air and ethyl ether vapour, A., 847*.
- Nagai, Y. See also Tanaka, Y.
- Nagami, S., platinum group metals. VIII. Liberation of chloro-iridic acid, A., 261.
- Nagaoka, H., quartz rod or sphere for condenser in spectroscopy, A., 1075.
- Nagaoka, H., and Futagami, T., sputtering of metals by disruptive discharge in a magnetic field, A., 339.
- filtration of spark lines by disruptive discharge in magnetic field, A., 339.
- luminous beads of metal particles sputtered by disruptive discharge in magnetic field, A., 683.
- filtration of arc and spark lines in a magnetic field by using disruptive discharge in a vacuum, A., 929.
- kinematographic sketch of electrically exploded wires, A., 933.
- velocity of particles sputtered by disruptive discharge, A., 933.
- electric explosions, A., 1081.
- time lag in the emission of spectral lines excited in a vacuum, A., 1168.
- Nagaoka, H., and Mishima, T., reversal of neon lines excited at radio-frequency, A., 98, 210.
- Nagaoka, H., Nukiyama, D., and Futagami, T., general features of disruptive discharge for obtaining instantaneous spectrograms, A., 97.
- Nagasako, N., enantiotropy, monotropy, and pseudomonotropy. I., A., 709.
- Nagaya, T. See Hansen, Anneliese.

- Nagel, T., [smokeless] fuel, (P.), B., 290.
fuel material [briquettes], (P.), B., 560.
- Nagel, W., and Grüss, J., examination of cements and plastic masses, with especial reference to their behaviour in electro-technique. I. Binding power, B., 484.
- Nagel, W., and Körnenen, (Frl.) M., shellac, B., 376.
- Nagel, W. See also Siemens-Schuckertwerke G.m.b.H.
- Nageotte, J., action of neutral salts on the artificial caking of collagen, A., 364.
- Nagornov, I. I., fusion of cyclohexanol, A., 827.
vapour pressures of mixtures of toluene and cyclohexane, A., 830.
vapour pressure of mixtures of benzene and cyclohexane, A., 830.
- Nagornov, N. N., and Rotinjanc, L. A., physical properties of some derivatives of cyclohexane, A., 115.
- Nagy, V. L. See Bodnár, J.
- Naik, K. G., and Bhat, Y. N., interaction of sulphur monochloride with organic compounds containing the reactive methylene group. IV. Formation and properties of dithioketones and dithioethers, A., 277.
condensation of ethyl cyanoacetate with some aryl- and alkylamines; preparation of some aryl- and alkyl-substituted cyanoacetamides, A., 407.
- Naito, G., and Nishioka, T., uric acid-formation, A., 917.
- Nakada, S. See Matsui, M.
- Nakagawa, T., and Harada, M., fate of secretin in pancreatic diabetes, A., 666.
- Nakahara, W. See Suzuki, V., and Yaoi, H.
- Nakahashi, K. See Kita, G.
- Nakajima, S., *Bombyx mori*. I. Effect of hydrogen-ion concentration on the coagulation of liquid silk. II. Quantitative changes of cystine, tryptophan, and tyrosine in proteins of silkworms, A., 1272.
- Nakamiya, Z., and Kawakami, K., hydrogenation of "biosterin," A., 92.
hydrogenation of sterol-free unsaponifiable matter of cod-liver oil. I., A., 676.
- Nakamura, G., relative intensity of spark and arc lines in the spark spectra of various elements, A., 805.
- Nakamura, H., and Sasaoka, Y., manufacture of ground-wood pulp, B., 227.
- Nakamura, H. See also Bertrand, G.
- Nakamura, K. See Sasaki, N.
- Nakamura, S. See Fujioka, Y.
- Nakamura, Y., formation of organic bases during incubation of eggs, A., 1050.
- Nakanishi, S. See Asahina, Y.
- Nakaseko, R., micro-determination of metallic elements. I. Micro-chemistry of potassium ferrocyanide [micro-determination of zinc], A., 725.
micro-determination of metallic elements. II. Micro-detection of iron with dimethylglyoxime, A., 727.
- Nakashima, R., structure of polypeptides and the proteolytic enzymes, A., 550.
tetrapeptide from gliadin, A., 657.
- Nakashima, S. See Kami, Y.
- Nakashima, T., acetic ester of cellulose xanthate, A., 873.
- Nakashima, T. See also Kita, G., and Sakurada, I.
- Nakata, S. See Matsui, M.
- Nakaya, U., vapour pressures of binary systems; aqueous solutions of orthophosphoric acid, sodium hydroxide, and potassium hydroxide, A., 1181.
- Nagazawa, F., [lack of] effect of pituitary preparations on phosphorus and calcium metabolism, A., 1287.
- Nakhmanovich, M. I., undetermined chemical losses of sugar in the refining process. I-VI., B., 64.
- Nakhmanovich, M. I., and Krasilschikov, B. E., boiling of the fill-mass in the first crystallisation [of sugar], B., 540.
- Nakhmanovich, M. I., and Zeligman, I. F., effect of animal char on the invert sugar in products of the sugar-refining industry, B., 584.
- Namasivayam, D., adsorption of acids by coconut charcoal and acetylene carbon, A., 13.
- Nametkin, S. S., comparison of Soviet and American kerosenes, B., 736.
- Nametkin, S. S., and Arkhangelski, B. T., comparison of Soviet and foreign lubricating oils. II., B., 630.
- Nametkin, S. S., and Briusova, L. J., structure of methylisoborneol from α -methylcamphene, of β -methylcamphenilone, and of their derivatives, A., 182.
- Nametkin, S. S., and Kursanov, D. A., action of phosphoric oxide on benzyl alcohol in benzene solution, A., 1371.
- Nametkin, S. S., and Puzillo, V. G., Sakhalin crude oils, B., 777.
- Nametkin, S. S., and Zabrodin, A., isocamphodieno, a new dicyclic, doubly unsaturated hydrocarbon, and bornylenol, the product of its hydration, A., 1018.
- Nance, W. O., and Delete Co., Inc., manufacture of a cleansing compound, (P.), B., 273.
- Nandi, B. L. See Neogi, P.
- Nanji, D. R., manufacture of pulp for paper production, (P.), B., 155, 744*.
- Nanji, D. R., and Norman, A. G., pectin. II. Determination of the individual pectic substances in nature, A., 559.
- Nanji, D. R. See also Abbey Synd., Ltd.
- Naoúm, P., safety explosives, B., 37.
- Narayau, A. L. See Rao, K. R.
- Narayan, B. See Varma, P. S.
- Narayana, N., and Norris, R. V., proteins of Indian foodstuffs. I. Proteins of ragi (*Eleusine coracana*): eleusin, the alcohol-soluble protein, B., 942.
- Narayana, N., and Sreenivasaya, M., characterisation of small quantities of proteins by Van Slyke's method, A., 1149.
- Náray-Szabó, S. von, Röntgen diagram of native starch, A., 1224.
- Náray-Szabó, S. von, and Susich, G. von, Röntgen diagrams of cellulose nitrate and cellulose acetate, A., 818.
- Náray-Szabó, S. von. See also Herzog, R. O.
- Narkiewicz, H. See Zawadzki, J.
- Narkirier, S., sulphur-bearing waters of Helouan-les-Bains; their composition and therapeutic value, A., 864.
- Nash, A. W., Bowen, A. R., and Elvins, O. C., production of olcines, (P.), B., 594.
- Nash, A. W., and Stanley, H. M., possible chemical utilisation of methane, with special reference to natural gas, B., 776.
- Nash, A. W. See also Bowen, A. R., Erdely, A., and Stanley, H. M.
- Nash, F. H., concentration of mineral ores in sluice boxes, etc., (P.), B., 162.
- Nasini, A., and Rossi, C., viscosities of the rare gases, A., 1084.
- Nasini, R., refractive index of sulphur trioxide, A., 6.
- Nastukov, A. M., extension of the formolito analysis of lubricating oils, B., 148.
treatment and refining of petroleum, (P.), B., 472.
- Nastukov, A. M. [with Golov, O. P., and Collie, A. J.], oxy-celluloses. IV., A., 157.
- Nastukov, A. M., and Schelagin, V. W., *pp'*-di-iododiphenylmethane, A., 1125.
- Nathan, L. See Hansena Akt.-Ges.
- Nathansohn Metall- & Farbwerke Akt.-Ges., A., Otavi Minen- & Eisenbahn-Ges., Hirsch & Sohn, Zinkhütte Hamburg, A., and Comp. Mét. Franco-Belge de Montagne (Société Anonyme), treatment of oxidised arsenical lead ores, (P.), B., 609.
- Nathanson, J. B., variation with state of the optical constants of caesium, A., 1310.
- National Aluminate Corporation. See Derr, R. B., Evans, William, and Moberg, A. R.
- National Aniline & Chemical Co., Inc. See Crowell, J. H., Field, C., Hess, R. W., Kranz, F. H., Lewis, H. F., Lyford, C. A., Mortimer, F. S., Nelson, R. A., Penny, J. P., Rogers, D. G., and West, B. L.
- National Carbon Co., Inc. See Hendry, W. F.
- National Equipment Co., and Bausman, A. L., method and apparatus for tempering chocolate, (P.), B., 284.
- National Lime Association. See McCormick, J. A.
- National Malleable & Steel Castings Co. See Schwartz, H. A.
- National Refining Process Corporation. See Kirkpatrick, W. C.
- National Smelting Co. See Frost, J. G. G.
- Natta, G., analysis by means of X-rays and crystal structure of alloys; constitution of cadmium-magnesium alloys, A., 699.
constitution of hydroxides and hydrates. I., A., 822.
preparation of aliphatic compounds of selenium, tellurium, and arsenic, A., 1364.
- Natta, G., and Freri, M., X-ray analysis and crystal structure of cadmium-silver alloys. I., II., and III., A., 223, 404, 820.
- Natta, G., and Passerini, L., isomorphism, polymorphism, and monotropy. I. Compounds of the type ABX₃, A., 1080.
aluminium arsenide, A., 1104.
arsenides of magnesium and zinc, A., 1313.
[formation of] solid solutions by precipitation, A., 1316.
- Natta, G., and Strada, M., oxides and hydroxides of cobalt, A., 1079.

- Natural Flower Metalizing Co., Inc. See Maas, F.
- Nan, A., volumetric determination of sodium, A., 385.
- Naudé, S. M., heat of dilution of moderately concentrated solutions, A., 368.
heat of dilution of solutions of low concentration, A., 1097.
- Naugatuck Chemical Co., and McGavack, J., treatment of latex and products thereof, (P.), B., 133*.
- Naugatuck Chemical Co., and Shepard, M. G., removing liquid from resinous products, (P.), B., 867.
- Naugatuck Chemical Co. See also Adams, H. S., Cadwell, S. M., Cude, H. E., Gibbons, W. A., Johnston, W. S., McGavack, J., Ostromislensky, I., Shepard, M. G., and Smith, O. H.
- Naumann, M. See Le Blanc, M.
- Naunton, W. J. S., organic rubber colours, B., 720.
- Naunton, W. J. S. See also British Dyestuffs Corporation, Ltd., and Cronshaw, C. J. T.
- Nawiasky, P. See Braunsdorf, O., and I. G. Farbenind. A.-G.
- Nead, J. H. See Reinartz, L. F.
- Neale, J., selenium cell, (P.), B., 272.
- Neale, S. M. See Farrow, F. D.
- Near, C. See Sullivan, B.
- Neave, S. L., and Buswell, A. M., treatment and disposal of distillery slop by anaerobic digestion methods, B., 732.
- Neave, S. L. See also Wallace, G. I.
- Necheles, H., autodigestion. III. Antitrypsin and insulin, A., 799.
- Necheles, H., and Lim, R. K. S., recovery of a pancreatic secretory excitant by *vivi*-dialysis of the circulating blood, A., 676.
- Necheles, H. See also Mills, C. A.
- Neckers, J. W. [with Kremers, H. C.], rare earths. XXVIII. Separation of cerium, A., 603.
rare earths. XXVII. I. Fractional precipitation of the cerium group earths by electrolysis. II. Solubility of rare-earth oxalates in nitric acid, A., 603.
- Nedelschiff, N. See Vaubel, W.
- Nedrigailov, D. N. See Fedotéev, P. P.
- Neeley, G. S., and Watkins, G., purification of water and removal and prevention of scale incrustations in boilers, etc., (P.), B., 390.
- Neelmeier, W., and Grasselli Dyestuff Corporation, brown substituted benzidine wool dyes, (P.), B., 46.
- Neelmeier, W., Nocken, T., and Grasselli Dyestuff Corporation, manufacture of azo-dyes, (P.), B., 9*.
- Neelmeier, W., Nocken, T., Rebner, W., and Grasselli Dyestuff Corporation, chromiable brown disazo-[mordant] dyes, (P.), B., 227*.
- Neelmeier, W., Rebner, W., and Grasselli Dyestuff Corporation, mordant disazo-dyes, (P.), B., 741*.
- Neelmeier, W., Schneider, Hans, and Grasselli Dyestuff Corporation, red disazo-dyes for cotton printing, (P.), B., 328*.
- Nees, A. R. See Brown, R. J.
- Neigen, A., production of partial negatives or diapositives for multicolour printing, (P.), B., 317.
- Negelein, E. See Warburg, O.
- Negresco, T., evolution of the theory of spectra, A., 337.
technique of spectrum analysis, A., 501.
influence of energy factors on the structure of spectra, A., 929.
- Negresco, T. See also Westgren, A.
- Negui, A., alloys for the manufacture of motor-car brakes, etc., (P.), B., 757.
- Neher, H. T. See Whitmore, F. C.
- Nehmitz, A., crystal structure of pentaerythritol, A., 1177.
- Nehring, K., relations between plant growth and soil reaction as affected by fertilisers and liming, B., 342.
- Neidich, S. A., dyeing of viscose filaments, (P.), B., 86.
viscose product, (P.), B., 155.
apparatus for the dehydration of viscose products, (P.), B., 187.
colloid product [from viscose], (P.), B., 600.
- Neidich, S. A. See also Mendel, W.
- Neidig, R. E., and Snyder, R. S., relation of the yield and protein content of wheat to the nitrogen content of the soil, B., 135.
- Neill, J. M. See Van Slyke, D. D.
- Nekrassov, A. S., state of aggregation of phenylbromoacetonitrile, A., 636.
action of cyanogen bromide on dimagnesium acetylene dibromide, A., 745*.
- Nekrassov, A. S. See also Nekrassov, V. V.
- Nekrassov, B. V., *cis-trans*-isomerism and homologous series, A., 613.
- Nekrassov, B. V., adsorption in solutions. XIV. Adsorption of homologous monobasic acids, A., 1087.
adsorption in solutions. XVI. Reversal of Traube's adsorption law, A., 1183.
- Nekrassov, B. V. See also Schilov, N. A.
- Nekrassov, V. V., preparation and properties of $\beta\beta'$ -dicyanodithiyl sulphide, A., 735.
conversion of diaminodiphenylarsinic acid into diphenylarsinic acid, A., 782.
- Nekrassov, V. V., and Nekrassov, A. S., β -chlorosubstituted compounds of arsenic, A., 1230.
- Nelissen, L. F., preparation of articles for nickel plating, (P.), B., 575.
- Nellensteyn, F. J., relation of the micelle to the medium in asphalt, B., 289.
- Nellensteyn, F. J., and Kuipers, J. P., ultramicroscopical examination of asphalt, B., 324.
- Neller, J. R., Vance, G. M., and Texas Co., refining of [hydrocarbon] oil, (P.), B., 561.
- Nelles, L. H., [rotatable cauldrons for use in] soap-making, (P.), B., 340.
- Nelson, C., and King, Taudevin, & Gregson, Ltd., rotary hearths for furnaces, (P.), B., 143.
- Nelson, E. K., acids of maple syrup, B., 685.
acids of maple sugar "sand," B., 685.
flavour of maple syrup, B., 685.
acids of figs, B., 689.
- Nelson, E. K., and United States, manufacture of thymol from umbellulone, (P.), B., 427.
- Nelson, E. M. See Jones, D. B.
- Nelson, H. A., and Jamieson, R. W., effect of weathering on the heat-reflecting efficiencies of paints on metal tanks, B., 647.
- Nelson, J. D. See Knaysi, G.
- Nelson, J. M., and Schubert, M. P., water concentration and the rate of hydrolysis of sucrose by invertase, A., 962.
- Nelson, N. T. See Graber, L. F.
- Nelson, O. A., effect of alkalinity on basic cupric sulphates, A., 1103.
- Nelson, R. A., Prasil, A., and National Aniline & Chemical Co., Inc., reduction of nitro-compounds [to hydrazo-compounds], (P.), B., 118.
- Nelson, R. E., Matchett, J. R., and Tindall, J. B., acyl derivatives of *o*-aminophenol. IV., A., 517.
- Nelson, R. E., Shock, N. W., and Sowers, W. H., acyl derivatives of *o*-aminophenol, A., 168.
- Nelson, S. T., and Sullivan Machinery Co., heat-exchange device, (P.), B., 696.
- Nelson, W. K. See Parks, G. S.
- Nelson, W. L., and Cretcher, L. H., preparation of ethyl phenylmalonate and of 5-phenyl-5- β -hydroxyethylbarbituric acid, A., 1380.
- Nelson, Ltd., J. See Haworth, W. N.
- Némeç, A., influence of the soluble silicic acid content of soil on the absorption of phosphoric acid by plants, A., 95.
colorimetric determination of the phosphoric acid requirement of soils, A., 1162.
amount of resins in forest humus and its influence on humification of organic matter, B., 28.
determination of the need of soils for phosphoric acid relative to the soluble silica content, B., 420.
colorimetric process for the determination of the phosphate requirement of arable soils, B., 938.
- Neogi, P., and Chatterji, M. P., preparation of organo-mercury compounds of phenols, phenol ethers, and aromatic amines, A., 783.
- Neogi, P., and Mitra, A. K., action of cuprous hydride on diazonium salts; combined Sandmeyer-Gattermann reaction, A., 749.
- Neogi, P., and Nandi, B. L., reduction of nitrites, nitrates, and nitric acid with magnesium amalgam; a new method of preparing hyponitrites, A., 855.
- Neogi, P., Neogi, S., and Chatterji, M. P., inversion of geometrical isomerides by an exothermic reaction; conversion of maleic into fumaric acid, A., 1115.
- Neogi, S. See Neogi, P.
- Nepveux, F., and Thépénier, A., absorption paper used in the micro-analytical methods of Bang, A., 1064.
- Nepveux, F. See also Labbé, M.
- Neresheimer, H. See I. G. Farbenind. A.-G.

- Nernst, *W.*, theory of electrolytic dissociation, A., 127, 953*.
calculation of electrolytic dissociation constants from electrical conductivity, A., 708.
- Nernst, *W.*, and Orthmann, *W.*, heat of dilution of salts at low concentrations, A., 1097*.
- Nesitka, *E.* See Dischendorfer, *O.*
- Neth, *W.* See Simon, *A.*
- Netolitzky, *F.*, alcoholic potassium hydroxide as microchemical reagent for starch and aleurone, A., 276.
- Netuka, *V.*, rate of dissolution of sucrose under various physical and chemical conditions, B., 344.
- Netz, *C. V.*, determination of oil in extract of lemon; precipitation and polarimetric methods: influence of temperature and ageing on the latter, B., 730.
- Neu, *W.*, purification of gases, (P.), B., 915.
- Neubauer, *H.*, Bonewitz, *W.*, and Sehottmüller, *A.*, comparison between soil examinations by the seedling method and that of Mitscherlich, B., 457.
does the supply of root-soluble nutrients in manured and unmanured soils alter during a growing period? B., 795.
- Neuberg, *C.*, and Kobel, *M.*, decomposition of amino-acids and amino-purines by methylglyoxal and related substances, A., 49.
fixation of acetaldehyde, A., 89.
enzymic liberation of methyl alcohol from pectin by an enzyme of tobacco, A., 201.
supposed separation of methylglyoxal in alcoholic fermentation, A., 203, 1284.
biochemical formation of optically active lactic acid; preparation of zinc *d*(-)-lactate, A., 272.
attempt to detect methylglyoxal as an intermediate product of glycolysis, A., 539.
chemical and enzymic processes in the light of stereochemical research, A., 921.
treatment of dipeptide or peptone with sugar, hexosediphosphate, and methylglyoxal, A., 1387.
phosphorylation and alcoholic fermentation of sugars, A., 1402.
- Neuberg, *C.*, and Leibowitz, *J.*, arsenate activation and the specificity of phosphatase, A., 201.
decomposition of zymodiphosphate by means of animal phosphatase to hexosemonophosphoric ester, A., 202.
partial dephosphorylation of hexosediphosphoric acid by yeast, A., 203.
biochemical preparation of a disaccharidemonophosphoric ester, A., 447.
- Neuberg, *C.*, and Ottenstein, *B.*, methyl alcohol in tobacco smoke, A., 95.
formation of methyl alcohol in the autolysis of fresh tobacco leaves, A., 1163.
- Neuberg, *C.*, and Schou, *S. A.*, structure of hexosephosphoric esters and methylglyoxal from their spectrographic behaviour, A., 203.
- Neuberg, *C.*, and Simon, *E.*, phytochemical reduction by bacteria, A., 204.
pyruvic acid, A., 551.
difference between the processes of alcoholic fermentation and of acetaldehyde dismutation, A., 1284.
alcoholic fermentation of sugars by acetic acid bacteria, A., 1285.
stereochemical specificity of ketone-aldehyde mutase, A., 1400.
- Neuberg, *C.*, Wagner, *Joachim*, and Jacobsohn, *K. P.*, asymmetric action of phosphatase and the resolution of the *dl*-isomerides of racemic alcohols, A., 88.
- Neuberg, *C.*, and Weinmann, *F.*, specificity of carboxylase, A., 1402.
- Neuberg, *C.*, Weinmann, *F.*, and Vogt, *M.*, synthesis of glyceric acid-monophosphoric acid, A., 1215.
- Neubert, *O.* See Günzler, *H.*
- Neubner, *R.*, the Trauzl test, B., 693.
- Neubronner, *K.*, distillation of Schwabian shale by means of inert waste gases, B., 43.
- Neue Glühlampen G.m.b.H. See Stewart, *R.*
- Neuendorff, *G.*, and Sauerwald, *F.*, electrolytic production of heavy metals from fused electrolytes. II., B., 526.
- Neuendorff, *G.* See also Sauerwald, *F.*
- Neuendorff, *J. B.*, manufacture of a gasoline substitute, (P.), B., 397.
- Neunenschwander, *N.*, enzymes of wheat flour, A., 1408.
- Neuenstein, *W. von*, solubility, swelling, and adsorption of cellulose in alkali, A., 16.
- Neufeld, *E.*, South African rubber, B., 100.
- Neufeld, *M.* See Mathesius, *W.*
- Neuhäusser, *A.* See Scheibe, *G.*
- Neubaus, *O.* See Anschütz, *R.*
- Neumann, *A.*, oxidative principle (oxone) of the blood and bone-marrow, A., 662.
Charcot-Leyden-Böttcher-Neumann crystals, A., 664.
oxidases and peroxidases of the red bone-marrow, uncombined with hæmoglobin. I., A., 1046.
- Neumann, *A.*, and Gratzl, *E.*, oxidases and peroxidases of the red bone-marrow, uncombined with hæmoglobin. II., A., 1046.
- Neumann, *B.*, Roman damascene steel, B., 17.
ancient glasses. III., B., 670.
- Neumann, *B.*, and Biljcevic, *P.*, catalytic preparation of formaldehyde, B., 82.
- Neumann, *B.*, and Domke, *R.*, equilibria in the ammonia-soda process under pressure, A., 480.
- Neumann, *B.*, and Kober, *S.*, adsorption phenomena with clays in non-aqueous media, B., 671.
- Neumann, *B.*, and Köhler, *G.*, equilibria relations for the water-gas reaction in the temperature interval 300–1000°, A., 707.
- Neumann, *B.*, Panzner, *H.*, and Goebel, *E.*, efficiency of different contact substances for the sulphuric acid contact process. I., B., 891.
- Neumann, *E.* See Gebauer-Fülnegg, *E.*
- Neumann, *H.*, conductivity of, and electric absorption in, insulators [amber, sulphur, and paraffin wax], and the effect on them of X- and γ -rays, A., 353.
- Neumann, *J. von*, Dirac's theory of spinning electrons, A., 811.
- Neumann, *J. von*, and Wigner, *E.*, explanation of some properties of spectra from the quantum mechanics of the spinning electron. I. and II., A., 344, 807.
- Neumann, *M. P.*, addition of protomalt to rye bread, B., 384.
- Neumann, *W.*, apparatus for treating liquids [water] with zeolites, (P.), B., 428.
water-softening apparatus, (P.), B., 944.
- Neumark, *H.*, anodic behaviour of copper-antimony alloys, B., 611.
- Neumayer, *K.* See Weltmann, *O.*
- Neunhöffer, *O.* See Küster, *W.*
- Neurath, *J.* See Bondi, *H.*
- Neurath, *O.* See Bondi, *H.*
- Neuweiler, *C.*, interchangeability of zinc oxide and dyes in optical sensitisation, A., 457.
- Neuweiler, *C.* See also Baur, *E.*
- Nevely, *F.* See Kalb, *L.*
- Neville, *N.*, and Federal Phosphorus Co., phosphate reducer for bottom chrome dyeing, (P.), B., 813.
- Nevins, *S. C.* See Long, *J. S.*
- New, *G. F.*, experimental yarn-sizing plant and some results obtained therewith, B., 10.
measurement of the resistance of flax yarns to wear, B., 153.
- New Jersey Zinc Co., method and apparatus for condensing zinc vapours, (P.), B., 758.
reduction of zinciferous materials, (P.), B., 931.
- New Jersey Zinc Co., Breyer, *F. G.*, and Farber, *C. W.*, manufacture of lithopone, (P.), B., 341.
- New Jersey Zinc Co., and Hooey, *W. C.*, manufacture of lithopone, (P.), B., 341.
- New Jersey Zinc Co. See also Borchardt, *W. O.*, Breyer, *F. G.*, Bunce, *E. H.*, Pierce, *W. McG.*, and Singmaster, *J. A.*
- New Metallurgy, Ltd. See Ashcroft, *E. A.*
- Newbery, *E.*, revision of the theory of transfer resistance, A., 958.
metal overvoltage measurements with the cathode-ray oscillograph, A., 959.
- Newbery, *G.*, and May & Baker, Ltd., manufacture of organic compounds of arsenic, (P.), B., 211, 799.
- Newbery, *G.*, and Phillips, *M. A.*, constitution of the supposed *N*-methylenesulphurous acid derivatives of amines. I. Oxidation by an alkaline solution of iodine, A., 311.
aryl arsenoxides and the corresponding dichloro- and di-iodoarsines, A., 1265.
- Newbound, *R.* See British Thomson-Houston Co., Ltd.
- Newey, *J. G.*, and Jerred, *C. B.*, electroplating apparatus, (P.), B., 22.
- Newhouse, *R. C.* See Allis-Chalmers Manuf. Co.
- Newitt, *D. M.*, gaseous combustion at high pressures. X. The co-volume corrections, maximum temperatures, and dissociation of steam and carbon dioxide in explosions, A., 847.

- Newitt, D. M. See also Bone, W. A.
- Newkirk, B. L. See British Thomson-Houston Co., Ltd.
- Newkirk, W. B., and International Patents Development Co., manufacture of grape sugar [dextrose], (P.), B., 280.
- manufacture of dextrose from starch, (P.), B., 312*.
- Newkirk, W. B. See also Ebert, C.
- Newlander, J. A., and Ellenberger, H. B., preparation of butter samples for analysis, B., 766.
- Newlands, G., certain acid soils and growth of sugar beet, B., 907.
- Newman, F. H., spectrum of ionised sodium, A., 210, 930.
- Newman, N. E. See Newtelle Corporation.
- Newman, R. K. See Harker, G.
- Newport Co., preventing the dissolution of iron and steel in sulphuric acid, (P.), B., 234.
- preparation of *p*-hydroxy-*o*-benzoylbenzoic acid, (P.), B., 293*.
- manufacture of tetrakisazo-dyes, (P.), B., 328*.
- manufacture of 3:4-diamino-*o*-benzoylbenzoic acids, (P.), B., 516*.
- manufacture of *p*-[4'-]amino-*o*-benzoylbenzoic acid, (P.), B., 704*.
- preparation of alkyl ethers of 3'-nitro-4'-hydroxy-*o*-benzoylbenzoic acid, (P.), B., 847*.
- manufacture of *N*-dihydro-1:2:1':2'-anthraquinoneazaine, (P.), B., 847*.
- Newport Co. See also Adams, R., Gubelmann, I., Palmer, R. C., and Weiland, H. J.
- Newsome, P. T., McBain-Bakr balance for sorption of vapours by fibrous and film materials, A., 1109.
- Newtelle Corporation, and Newman, N. E., manufacture of plastic sheets or slabs [resembling tiles], (P.), B., 335.
- Newton, (Miss) D. A. See Bond, W. N.
- Newton, H. A., manufacture of an edible fat, (P.), B., 284.
- Newton, H. A. See also Yndowitch, H.
- Newton, J. See Port, P. J.
- Newton, J. D., selective absorption of inorganic elements by various crop plants, B., 907.
- Newton Chambers & Co., Ltd., and Hurst, J. E., production of cast-iron castings by a centrifugal process, (P.), B., 304.
- Newton Process Manufacturing Co. See Kobernik, J. E.
- Ni, T. G., and Lim, R. K. S., gas and sugar metabolism of the vivi-perfused stomach, A., 442.
- Ni, T. G., and Liu, A. C., modifications in blood accompanying gastric secretion. III. Carbon dioxide, A., 85.
- Ni, T. G. See also Hou, C. L.
- Niagara Electro Chemical Co., Inc. See Baum, G.
- Nicholas, H. O. See Garrison, A. D.
- Nicholas, S. D. See Wood, C. E.
- Nicholas, W. W., system of structures for atomic nuclei, A., 1303.
- Nicholl, W. D. See Evans, W. L.
- Nicholls, J. R., determination of small quantities of benzoic and cinnamic acids, with some notes on the colorimetric determination of salicylic acid, A., 313.
- Nichols, J. B. See Svedberg, T.
- Nichols, W. A., jun. See Keyes, D. B.
- Nichols Copper Co. See Baird, D.
- Nicholson, S. B., and Perrakis, N., constitution of the solar atmosphere, A., 340.
- spectroscopic proof of the presence of boron in the sun, A., 863.
- Nickel, S. See Schönberg, A.
- Nickerson, C. B., qualitative separation of the metals of the alkaline-earth group, A., 859.
- Nicloux, M., oxidation of dextrose in alkaline solution by air or oxygen with formation of carbon monoxide, A., 620.
- Nicloux, M., and Scotti-Foglieni, L., absorption and solubility coefficients of chloroform vapour in water, blood, serum or plasma, and milk A., 1151.
- Nicol, C. See Aerocrete (Foreign), Ltd.
- Nicol, (Miss) P. M., optical properties of selenium in the conducting form, A., 226.
- Nicola, P. C. See Honig, P.
- Nicolai, H. W., alcohol content of blood and organs. II., A., 1392.
- Nicolai, H. W., and Kageura, N., fermentative metabolism of bacteria. V. *Staphylococcus*, A., 924.
- Nicolaiev. See Nikolaiev.
- Nicolardot, P., changes in optical glasses, B., 14.
- Nicolas, E., and Katrandjiev, K., antigenic character of albumins modified by heat and their specific differentiation by precipitant sera, A., 664.
- Nicolas, E., and Lebduška, J., biochemical study of thiocarbamide, A., 919.
- effect of carbamide and of thiocarbamide on the development and vitality of bacteria, A., 924.
- Nicolas, L. See Courtot, C.
- Nicolau, P., anomaly of reheating after cold-beating shown by copper and steels, B., 301.
- industrial control of cold-hardening and annealing [of brasses] by light-load ball tests, B., 487.
- Nicolet, B. H., and Bender, J. A., [preparation of] 3-nitrophthalic anhydride, A., 413.
- Nicolet, B. H., and Campbell, E. D., benzylidenecreatinine and related compounds, A., 623.
- Nicolet, B. H., and Potts, W. M., reaction of isopropyl iodide with mercuric chloride, A., 269.
- Nicolet, B. H., and Stevens, D. R., alcoholysis and hydrolysis of some alkyl halides in neutral solution, A., 269.
- Nicolet, G. See Berthoud, A.
- Nicolia, M. See Weigert, F.
- Nider, D., preparation of colloidal gold solutions; detection and determination of small amounts of gold, A., 234.
- Niederberger, W. See Bistrzycki, A.
- Niedercorn, J. G., molybdenum tannage, B., 310.
- Niedercorn, J. G. See also Merrill, H. B.
- Niederhauser, F. C., and Kline, H. B., manufacture of cellulose compounds [viscose silk], (P.), B., 295.
- Niederhauser, F. C., Kline, H. B., and Industrial Fibre Co., recovery of poisonous gases [hydrogen sulphide] in viscose manufacture, (P.), B., 295.
- Niederhauser, F. C., Kline, H. B., and Industrial Rayon Corporation, treatment of cellulosic material, (P.), B., 330.
- Niederhoff, P., ultra-violet absorption of carbohydrates, A., 620.
- Niederl, J. B., new condensation of ketones with phenols; "phorone-di-*m*-cresyl ether," A., 1137.
- Niederl, J. B. See also Mandel, J. A.
- Niederländer, K. See Funk, H.
- Niedzwiecka, H. See Przylecki, S. J.
- Nielsen, H., rotary refrigerating apparatus, (P.), B., 659.
- Nielsen, H., and Garrow, J. R., manufacture of mixed gas, (P.), B., 116*.
- Nielsen, H., and Laing, B., manufacture of gas, (P.), B., 180.
- distillation of solid carbonaceous materials, (P.), B., 356, 395, 593.
- manufacture of catalysts, (P.), B., 367*.
- conversion of hydrocarbons, (P.), B., 514*.
- distillation of solid carbonaceous materials and retorts therefor, (P.), B., 778.
- Nielsen, H. See also Donnelly, J. T.
- Nielsen, R. F., and Brown, D. J., cuprous chloride electrodes, A., 246.
- Nielsen, W. M., dissociation of hydrogen chloride by positive ion impact, A., 1300.
- Nielson, K. W. See Turnbow, G. D.
- Niementowski, S., Frühling, J., and Joszt, R., synthesis of the pyridine analogues of quinizarin, A., 73.
- Niementowski, S. See also Musierowski, A.
- Nienhaus, H. See Maurer, E.
- Nienhuis, J. P., explosive compositions for blasting fuses, (P.), B., 875.
- Nierenstein, M., synthesis of myricetin, A., 426.
- Nierenstein reaction, A., 739, 1135.
- structure of tannin, A., 764.
- the catechin problem, A., 1256.
- Nierenstein, M. See also Fear, C. M., and Malkin, T.
- Nierman, J. L. See Hogan, A. G.
- Niessen, K. F., the asymmetric two-centre problem according to the wave-mechanics and its application to crystal theory; scattering power of atoms, A., 456.
- Niethammer, A., angiosperm seeds and factors in germination. III. Surface-active substances, A., 1289.
- Niethammer, C., production of combed materials, rovings, fine yarns, etc. from artificial fibres, (P.), B., 229.
- Nietz, A. H., molecular orientation at surfaces of solids. I. Measurement of contact angle and the work of adhesion of organic substances for water, A., 358.
- molecular orientation at surfaces of solids. II. Work of adhesion of the saturated fatty acids for water, A., 582.

- Nieuwenburg, *C. J. van*, and De Nooijer, *G. N. J.*, one-component system SiO_2 -catalysts for the slow transformations, A., 709.
- Nieuwenburg, *C. J. van*, and Dingemans, *H. H.*, analysis of silicates by decomposition with alkali hydroxides in a nickel crucible, B., 671.
- Nieuwenburg, *C. J. van*, and Zijlstra, *H. I.*, one-component system SiO_2 . I. Dilatometric measurements on tridymite and cristobalite, A., 228.
- Nieuwland, *J. A.*, See Flood, *S. A.*, and Reilly, *J. A.*
- Niewodniezański, *H.*, fluorescence of mercury vapour, A., 813.
- Nightingale, *E.*, See Cocks, *L. V.*
- Nightingale, *G. T.*, Robbins, *W. R.*, and Schermerhorn, *L. G.*, freezing as a method of preserving plant tissue for the determination of nitrogenous fractions, A., 335.
- Nightingale, *H. W.*, pollution problems in the State of Washington and their solution, B., 838.
- Niisato, *S.*, mordant paste, (P.), B., 50.
- Nijhoff, *G. P.*, and Keesom, *W. H.*, isotherms of monatomic substances and their binary mixtures. XXVI. Isotherms of helium at -183.0° and -201.5° and 3–8 atm., A., 1179.
- Isotherms of diatomic substances and their binary mixtures. XXXIV. Isotherms of hydrogen at 0° and 100° . XXXV. Isotherms of hydrogen at -225.5° to -248.3° and 1.6 – 4.2 atm., A., 1179.
- Nijhoff, *G. P.*, Keesom, *W. H.*, and Iljin, *B.*, isotherms of monatomic substances and their binary mixtures. XXVII. Isotherms of helium between -103.6° and -259.0° and 1.5 – 14 atm., A., 1179.
- Nikaido, *K.*, non-protein serum-colloids and their biological significance, A., 1151.
- Nikiel, *M.*, apparatus for the determination of gas densities, A., 609.
- Nikiforova, *N. S.*, See Tronov, *B. V.*
- Nikitin, *N. J.*, and Juréev, *W. J.*, absorption of ammonia, carbon dioxide, and vapours of benzene and acetone by gels of titanium dioxide and stannic oxide, A., 832.
- Nikolaiev, *K.*, peroxidase properties of leucocytes, A., 662, 1269.
- Nikolaiev, *V.*, distribution of a base (sodium hydroxide) between two acids (nitric and hydrochloric) in saturated aqueous solutions, A., 19.
- manufacture of sodium nitrate and hydrochloric acid from sodium chloride and nitric acid (or oxides of nitrogen), B., 87.
- [equilibrium models], A., 844.
- partition of nitric acid between sodium and potassium hydroxides, A., 1325.
- allotropic modifications and solid solutions of phosphorus, A., 827, 1342.
- Nikolaiev, *V.*, See also Ipatiev, *V. N.*, and Kurnakov, *N. S.*
- Nikolskaja, *Z. I.*, See Kulikov, *V. M.*
- Nikolski, *S.*, See Kuni, *V.*
- Niles, *S.*, gold separator, (P.), B., 59.
- Nill, *E. A.*, Acker, *F. C.*, and Dall, *J. R.*, lubricating composition, (P.), B., 292.
- manufacture of anilides, (P.), B., 293.
- Nilsson, *R.*, purification of yeast co-enzyme, A., 1159.
- Nilsson, *R.*, See also Euler, *H. von*.
- Nimmo, *R. R.*, See Feather, *N.*
- Nippe, *W.*, swelling capacity of bleached sulphite-cellulose, B., 705.
- Nisbet, *N.*, See Thomson, *T.*
- Nishibe, *M.*, oxidase reaction in bacteria. III. Nature of the oxidase reaction, A., 551.
- Nishida, *H.*, and Shimada, *K.*, preparation of artificial petroleum and decolorising carbonaceous substances from rubber scrap or vulcanised rubber waste, (P.), B., 253, 739*.
- Nishijima, *Y.*, See Okuda, *Y.*
- Nishikawa, *S.*, and Kikuchi, *S.*, diffraction of cathode rays by calcite, A., 1312.
- Nishikawa, *S.*, and Matukawa, *K.*, hemihedry of zinc blende and X-ray reflexion, A., 693.
- Nishimatsu, *I.*, and Kimura, *S.*, catalytic action. XVIII. Catalytic reduction of β -naphthol, A., 285.
- Nishimura, *S.*, activator of malt amylase, A., 1400.
- decomposition of starch by the amylase of *Aspergillus oryzae* and of malt with special reference to the limit of decomposition, B., 30.
- Nishimura, *S.*, See also Mashino, *M.*
- Nishimura, *T.*, basic magnesium carbonate, A., 1103.
- Nishimura, *T.*, and Yamamoto, *T.*, basic carbonates of beryllium, A., 1199.
- basic carbonates of zinc and cadmium, A., 1341.
- Nishina, *Y.*, See Klein, *O.*
- Nishio, *S.*, variation of the refractive indices of sphalerites and their iron contents, A., 731.
- Nishioka, *T.*, See Naito, *G.*
- Nisi, *H.*, and Miyamoto, *K.*, fluorescence of fluorspars excited by light of different wave-lengths, A., 1170.
- Nitsehe. See Sander.
- Nitsche, *M. P.*, production of fertilisers, (P.), B., 907.
- Nitsche, *R.*, testing of sealing wax, B., 680.
- Nitschke, *A.*, condition of calcium in serum, A., 316.
- conductivity of aqueous salt solutions containing calcium hydrogen carbonate, A., 317.
- Nitta, *I.*, crystal structure of tetraethylammonium iodide, A., 1079.
- Nitta, *I.*, See also Demény, *L.*
- Nitta, *K.*, See Omura, *S.*
- Nitzberg, *G.*, See Bertrand, *G.*
- Nitzescu, *I.*, and Popoviciu, *G.*, isolation of the antirachitic factor from irradiated cholesterol, A., 206.
- Nitzschmann, *R.*, volumetric and thermal relations of contact sulphuric acid, B., 50.
- volumetric and thermal study of ammonia and its synthesis, B., 586.
- Niven, *C. D.*, crystal structure of calcium, A., 1312.
- Niven, *C. D.*, See also McLennan, *J. C.*
- Nivling, *W. A.*, [continuous] viscosimeters, (P.), B., 321.
- Nixon, *E. G.*, See Main, *R. D.*
- Nixon, *G. R.*, See Minchin, *S. T.*
- Nixon, *J.*, See Hodgson, *H. H.*
- Niyogy, *S. C.*, organo-antimony compounds. I., A., 189.
- organo-antimony compounds. II. Constitution of *p*-amino-[phenyl]stibinic acid and its amino salts, A., 1148.
- Njegovan, *V.*, extension of the idea of entropy, A., 478.
- Njegovan, *V.*, and Marjanović, *V.*, quantitative precipitations in highly concentrated solutions. I. [Determination of sulphuric acid], A., 497.
- quantitative precipitations in concentrated solutions, A., 978.
- Noack, *W.*, See Scheiber, *J.*
- Noah, *G.*, lactic acid in blood, particularly in hepatic disease, A., 321.
- Noar, *R. J.*, manufacture of sponge rubber, (P.), B., 277.
- Nobel, *P.*, dry refining of Rumanian oils, B., 43.
- Nobel's Explosives Co., Ltd., and Morris, *G.*, manufacture of detonators for blasting and industrial purposes and for shells, mines, etc., (P.), B., 876.
- Noble, *R. E.*, cyanide-citrate pour-plate medium for direct determination of the colon-aërogenes content of water and sewage, B., 318.
- comparative colon-aërogenes indices of water and sewage, B., 588.
- Noble, *V. d'O.*, See Mills, *H. V. T.*
- Noble, *W. C., jun.*, and Knacke, (*Miss*) *F. E. D.*, action of *Bacillus diphtheriae* and some related organisms on glucosamine, A., 924.
- Nocken, *T.*, See Neelmeier, *W.*
- Noda, *T.*, See Kameyama, *N.*
- Noddack, *W.*, rhenium, A., 1344.
- Noden, *G. M.*, Siemens basic steel utilising pig iron from South African ores, B., 751.
- Nodon, *A.*, and Cuvier, *G.*, radioactivity of wines, B., 908.
- Noeggerath, *J. E.*, pressure electrolysis of water, B., 677.
- Noel, *F. A. G.*, and Bailly, *E. W.*, centrifugal separators, etc., (P.), B., 430.
- Noera, *A.*, See Leone, *P.*
- Noethling, *W.*, See Mark, *H.*
- Noir, *C.*, and Tching-Datchong, preparation of cyanogen by the wet method, A., 994.
- Nokes, *C. M.*, See Hahn, *A. W.*
- Nolan, *T. J.*, and Casey, *M. T.*, pigment of elderberry (*Sambucus nigra*, L.), A., 1021.
- Noll, *A.*, solvents and plasticisers for cellulose esters, B., 203.
- detection of sulphur and sulphurous acid in mineral colours, B., 418.
- wetting-out and emulsifying agents, B., 479.
- "wetting-out agents" for the paint industry and their investigation, B., 530.
- detection of sulphur and sulphurous acid, B., 567.
- lacquer diluents, B., 826.
- Noll, *F.*, manufacture of persalts, (P.), B., 483*.
- Noll, *W.*, See Linck, *G.*
- Nollau, *E. H.*, See Du Pont de Nemours & Co., *E. I.*

- Nolle, J. See Steppuhn, O.
- Nolte, O., and Leonhardt, R., influence of various potash salts on the yield and starch content of potatoes, B., 278.
- Nomura, H., and Choi, S. el, syntheses of β -4-hydroxy-3-methoxyphenylethyl *n*-pentenyl and *n*-hexenyl ketones, A., 1015.
- Nomura, H., and Hotta, S., chemical constitution and pungency: syntheses of ethyl hydroferulate [β -4-hydroxy-3-methoxyphenylpropionate] and β -4-hydroxy-3-methoxyphenylpropyl alcohol, A., 1005.
- Nomura, H., and Iwamoto, K., pungent principles of ginger. V. Distillation of methylzingerol, A., 1375.
- Nonaka, M., soap. VII. Viscosity and hydration of soap solutions, A., 836.
- Non-Inflammable Film Co., Ltd., and Mallabar, H. J., manufacture of [matt] cellulose ester or the like sheets, (P.), B., 744.
- Non-Inflammable Film Co., Ltd. See also Mallabar, H. J.
- Norbury, A. L., effect of quenching and tempering on the mechanical properties of standard silver, B., 267.
- Norbury, A. L., and Kuwada, K., temperature-electrical resistivity relationship in certain copper α -solid solution alloys, A., 7.
- Norbury, A. L., and Samuel, T., recovery and sinking-in or piling-up of material in the Brinell test, and effects of these factors on correlation of the Brinell with other hardness tests, B., 411.
- Nord, F., influence of some protein derivatives on the regulation of blood-sugar. I. Effect on the blood-sugar curve and the hyperglycemic reaction after adrenaline, A., 448.
- Nord, F. F., and Franke, K. W., mechanism of enzyme action. II. Action of ethylene, A., 1284.
- Nordbø, R., fibrinogen, A., 193.
- Norddeutsche Affinerie, dearsenification of ores and metallurgical products, (P.), B., 609.
- Norddeutsche Chemische Fabrik in Harburg, recovery of lead or valuable lead compounds from lead-sulphur compounds, (P.), B., 157.
- Nordenfeldt, E. See Euler, H. von.
- Nordenson, T. See Armstrong, H. C.
- Nordheim, L., thermionic emission and electron reflexion by metals, A., 452.
- Nordheim, L. See also Fowler, R. H.
- Nordiske Natrolith A/S. See Höganäs-Billesholms Aktiebolag.
- Nordling, W. G., and Stewart, A., jun., metal reclaiming process, (P.), B., 528.
- Norling, K. A. P. See Svensson, K. J.
- Norman, A. G., pectin. III. Degree of esterification of pectin in juice of the lemon, A., 802.
- Norman, A. G. See also Nanji, D. R.
- Norman, D. B. See Woodman, H. E.
- Norris, G. L., and Vanadium Corporation of America, steel alloy, (P.), B., 756.
- Norris, J. F., chemical reactivity of atoms and groups in organic compounds, A., 26.
[preparation of] Δ^8 -pentene, A., 392.
- Norris, J. F., and Banta, C., reactivity of atoms and groups in organic compounds; the carbon-chlorine bond. IV. Rates of reaction between derivatives of diphenylmethyl chloride and ethyl and isopropyl alcohols, A., 1000.
- Norris, J. F., and Blake, J. T., reactivity of atoms and groups in organic compounds; the carbon-chlorine bond. V. Rates of reaction between derivatives of diphenylmethyl chloride and ethyl alcohol, A., 1000.
- Norris, J. F., and Gregory, D. V., reactivity of atoms and groups in organic compounds; the carbon-chlorine bond. VI. Rates of reaction of benzoyl chloride and some derivatives with isopropyl alcohol, A., 1000.
- Norris, J. F., and Morton, A. A., reactivity of atoms and groups in organic compounds; the carbon-chlorine bond. III. Rate of reaction between diphenylmethyl chloride and ethyl alcohol, A., 1000.
- Norris, J. F., and Olmsted, W., [preparation of] *tert*-butyl chloride, A., 615.
- Norris, R. V., and Rao, D. A. R., determination of iodine in soils, B., 796.
- Norris, R. V. See also Ayyar, C. V. R., Fowler, G. J., Narayana, N., Ranganathan, S., and Sastri, B. N.
- Norris, W., adjustment for retort mouthpiece doors, (P.), B., 554.
- Norris, W. S. G. P. See Thole, F. B.
- Norrish, R. G. W., and Smith, F. F. P., velocity coefficient for bimolecular reactions in solution, A., 249.
- Norsk Hydro-Elektrisk Kvaestofaktieselskab, purification of gases to be used in the production of ammonia, (P.), B., 191.
concentration of dilute nitric acid, (P.), B., 746.
manufacture of phosphoric acid and hydrogen, (P.), B., 927.
- Norsk Hydro-Elektrisk Kvaestofaktieselskab. See also Falck, H. J., and Halvorsen, B. F.
- Norske Aktieselskab for Elektrokemisk Industri, and Akt.-Ges. für Stickstoffdünger, electrode holders for electric furnaces, (P.), B., 98.
- Norske Aktieselskab for Elektrokemisk Industri. See also Söderberg, C. W.
- Norske Aktieselskab for Elektrokemisk Industri of Norway. See Westly, J.
- Norske Molybdaenprodukter A/S., treatment of cupriferous molybdenite, (P.), B., 932.
- North, C. E., manufacture of beverages, (P.), B., 545.
- North, C. O., Christensen, C. W., and Rubber Service Laboratories Co., vulcanisation of rubber, (P.), B., 533.
- North, C. O., and Rubber Service Laboratories Co., rubber vulcanisation accelerator, (P.), B., 101.
manufacture of derivatives of the reaction product of amines and aldehydes, (P.), B., 308.
manufacture of the aliphatic aldehyde derivative of the condensation product of an aliphatic aldehyde and an aromatic primary amine, (P.), B., 309.
- North, C. O., Scott, Winfield, and Rubber Service Laboratories Co., rubber vulcanisation accelerator, (P.), B., 377.
- Northrop, J. H., permeability of thin dry collodion membranes, A., 359.
- Northrop, J. H., and Kunitz, M., combination of salts and proteins. III. The combination of cupric, magnesium, calcium, aluminium, lanthanum, and potassium chlorides, silver nitrate, and sodium sulphate with gelatin, A., 837.
preparation of electrolyte-free gelatin, A., 909.
- Northrup, E. F., electric induction furnaces, (P.), B., 22, 790.
- Northrup, E. F., and Ajax Electrothermic Corporation, induction pressure or vacuum furnace, (P.), B., 823.
- Northrup, E. F. See also Ajax Electrothermic Corporation.
- Norton, B., machines for breaking coal or other friable material, (P.), B., 182, 659.
- Norton, J. F., and Barnes, M., interference of *Clostridium Welchii* with *B. coli* tests in water analysis, B., 588.
- Norton, R. D. See Wheeler, A. S.
- Norton Co. See Martin, R. H., and Webster, D. E.
- Nosaka, K., catalytic decomposition of hydrogen peroxide by blood. I. Chemical dynamics of blood-catalase. II. Effect of temperature on blood-catalase. III. Catalytic activity of the red cells. IV. So-called heat-activation and influence of some organic substances on the red blood-cell catalysis, A., 1269.
- Nosaka, T., iodine content of thyroid in various animals, A., 83.
iodine content of thyroid in the Japanese foetus, the new-born child, and at the age of puberty, A., 319.
- Nosek, F., boiling of white sugars, B., 620.
decolorisation of [sugar] juices by active carbons, B., 345.
working white sugar massecuites [in the beet-sugar factory], B., 684.
- Nottage, (Miss) M. E., adhesion. III. Mixtures of two lubricants, A., 583.
- Nottage, (Miss) M. E. See also Hardy, (Sir) W. B.
- Nouvelles Industries Chimiques Société Anonyme, recovery of nitrogen and acetone from vinasses and/or molasses, (P.), B., 345, 425.
- Novak, H., and Brod, A., recovery of liquid products from coal, (P.), B., 252.
- Novák, J., and Čech, V., phenol-formaldehyde resinification. I., B., 719.
- Novák, V., and Maláč, B., exchangeable bases in soil, B., 536.
- Novakovski, A. See Korczyński, A.
- Novelli, A., azomethine derivatives of fluorene, A., 180.
action of bromine on azomethine derivatives of fluorene, A., 1135.
- Novelli, A., and Ruiz, C., substantive dyes derived from 2:7-diaminofluorene, A., 1368.
- Novelli, A. See also Guglielmini, L.
- Novelli, F., furnace and kiln, (P.), B., 506.
- Novelly, R., coating of metallic articles to protect them from corrosion, (P.), B., 452.
- Novikov-Vakulenko, N., pyro-benzene from mazout from Surakhani paraffin oils and from residue from heavy gas tars, B., 661.

- Nowack, L. See Fraenkel, W.
 Nowack Akt.-Ges. See Beutner, R.
 Nowak, E. See Sauerwald, F.
 Nowotny, R., diffusion of water-soluble substances in impregnated wood, B., 158.
 Noyes, A. A., and Beckman, A. O., periodic table of the structure of atoms and its relation to ion formation and valency, A., 222.
 Noyes, B., jun., adjustable thermostat, A., 1208.
 Noyes, W. A., illinium, A., 147.
 Noyes, W. A., jun., photochemical studies. VI. Photochemical reaction between oxygen and mercury vapour at relatively low pressures, A., 140.
 Noyes, W. A., jun. See also Herr, W. N., and Pierce, W. C.
 Nübling, R., and Mezger, R., coke-oven and gas-works gas: a comparative study of gas quality, B., 393.
 Nüsslein, J. See I. G. Farbenind. A.-G.
 Nugent, T. C., and Walmsley, H. P., scattering of light by particles of metallic oxides dispersed in dry air, A., 1170.
 Nuhn, H., Blood, L. H., and Antimony Products Corporation, preparation of antimony [penta]sulphide, (P.), B., 603.
 Nukiyama, D. See Nagaoka, H.
 Nukiyama, H., and Horikawa, H., relation between the secondary electron emission from nickel and tungsten and temperature, A., 102.
 Numa, M., viscose. IV. The viscose film (cellophane), B., 10.
 viscose; conditions of formation of cellulose xanthate, B., 84.
 viscose. V. Quality of caustic soda, manufactured in Japan, from the point of view of the viscose industry, B., 476.
 Numbers, (Miss) A. H. See Rule, H. G.
 Nusbaum, C., magnetic susceptibility of single-crystal metals, A., 1314.
 Nussbaum, M. See Grube, G.
 Nutland, J. H. See Gibson, C. S.
 Nuttall, J. M., K-absorption edges of potassium and chlorine in various compounds, A., 692.
 Nutting, P. G., association of water with serpentine, A., 390.
 petroleum and the filtering earths, A., 1210.
 Nuzum, F. R., kidney changes in animals with increased blood-pressures while on high-protein diets, A., 87.
 Nuzum, F. R. See also Bischoff, F.
 Nybergs Grufaktiebolag, reduction of [iron] ores, (P.), B., 608.
 Nydegger, O., determination of sulphuric acid by the benzidine method, A., 607.
 Nyegaard & Co., A./S. See Laland, P.
 Nyiri, W., standardisation of germicides, B., 546.
 Nyrop, A., preservation and transportation of oils and fats, (P.), B., 678.
 manufacture of chocolate, (P.), B., 729.
 Nyrop, J. E., preparation of latex products for rubber manufacture, (P.), B., 494.
 manufacture of cream or like fatty powders, (P.), B., 825.
 Nys, L. See Loppens, G.

O.

- Oakeshott, S. H., and Plant, S. G. P., derivatives of 7:8:9:10-tetrahydro- $\alpha\beta$ -naphthacarbazole, and of 8:9:10:11-tetrahydro- $\alpha\beta'$ -naphthacarbazole, A., 1023.
 Oakley, H. B., action of alkalis on clay, A., 16.
 influence of alkalis on the coagulation of silica and clay suspensions by alkali chlorides, A., 126.
 Oakley, P. D. See Siemens Electric Lamps & Supplies, Ltd.
 Oakley, W. A., manufacture of artificial stone or plaster, (P.), B., 125.
 O'Barr, T. A., and Du Pont de Nemours & Co., E. I., production of waterproofing composition [for explosives], (P.), B., 142.
 Oberg, E. L. See Waterman, H. I.
 Oberhard, I. G., and Kubassov, N. A., determination of alcohols in ethereal oils, B., 654.
 Oberhauser, F., and Hensinger, W., activated form of oxalic acid, A., 505.
 Oberhoffer, P., and Esser, H., iron-chromium equilibrium diagram, B., 18.
 Oberhoffer, P. See also Eichenberg, G., Esser, H., Groebler, H., Hessenbruch, W., and Moss, M. von.

- Oberle, A., and Universal Oil Products Co., carbonaceous fuel and its manufacture, (P.), B., 778.
 Oberlies, F., lattice constants for the mixed crystal series KCl-KBr, A., 1313.
 Oerlin, M. See Merck, E., Chemische Fabrik.
 Oberrheinische Handelsges.m.b.H., treatment of yarns and fabrics, (P.), B., 520.
 Oberschlesische Kokswerke & Chemische Fabrik Akt.-Ges., Russig, F., and Damm, P., purification of crude naphthalene, (P.), B., 118.
 Oberweger, M. See Madelung, W.
 Obinata, I., self-hardening property of chromium steel, B., 673.
 Obreimow, I., and De Haas, W. J., change of colour of crystals at low temperature, A., 1072.
 O'Brien, C. S., and Myers, V. C., analyses of blood in patients having senile cataract, A., 1273.
 O'Brien, F. See Dickinson, R.
 O'Brien, R. J., jun., and Collway Laboratories, Inc., weighting of silk, (P.), B., 925.
 O'Brien & Partners, Ltd., S. See Gower, C. H. R., and Webb, H.
 Obrist, J., references to colloid technology. II. Plastic substances, B., 551.
 Obrist, J. See also Manfred, O.
 Obryadchikov, S., acid sludge from oil fractions from Embe crude oil, B., 661.
 Obst, P., Wodarz, K., and Meyer, D., acidity, degree of saturation, and lime requirement of soils on the basis of pot experiments, B., 26.
 Oceania Industries, Ltd. See Stanley, J. C. W.
 Ochwat, P. See Zahn, K.
 O'Connor, E. A., composition of bleaching powder. I., B., 88.
 O'Connor, J. A. See Simon, M. E.
 Oda, K., waterproof dyeings, B., 890.
 Oda, Y., lactacidogen; influence of salts on muscle hexose-phosphatase, A., 796.
 Oddo, B., syntheses by means of magnesylpyrroles. [II.] XII. Indolephthalein, A., 1380.
 Oddo, B., and Albanese, A., syntheses by means of magnesylpyrroles. [II.] XI. α - and β -Ketonic acids, A., 185.
 Oddo, B., and Mingoia, Q., formation and constitution [and anti-tubercular action] of sodium aurosulphite, A., 140.
 glyoxaline compounds, A., 1381.
 opening of the glyoxaline ring. II., A., 1381.
 Oddo, G., new constitutional formula for cellulose, A., 873.
 extraction of sucrose from carobs, B., 831.
 Oddo, G., and De Fonzo, V., extraction of crystallised sucrose from the carob, B., 29.
 Oddo, G., and Giacalone, A., reduction of hydroxyazo-compounds to aminophenols by means of phenylhydrazine. II. 5-Amino-saligenin and its oxidation by phenylhydrazine, A., 879.
 oxidation of alcohols by means of phenylhydrazine, A., 880.
 Odell, W. W., manufacture of heat-insulating material, (P.), B., 232.
 Odell, W. W. See also Botsford, C. W.
 Odén, S., soil acidity, B., 27.
 Odén, S., and Winckler, N., sedimentation analysis. III., B., 247.
 Odling, M., and Street, A. A., treatment of slag and the like for the production of aluminium sulphate and other by-products, (P.), B., 893.
 Odom, L. L., and Purity Chemical Co., reconditioning of crank-case oil, (P.), B., 181.
 O'Donnell, D. C. See Evans, W. L.
 O'Dwyer, M. H., constitution of the hemicellulose of timber, A., 559.
 Oechslin, C. J., preparation of aliphatic di- or poly-hydroxy-arsinic acids, (P.), B., 141*.
 Oehlke, K. See Sabalitschka, T.
 Oehme, H. See Chemische Fabrik Kalk Ges.m.b.H.
 Oehmke, K. See Fries, K.
 Oehrli, A., microchemical determination of caffeine and theobromine in drugs, B., 315.
 Ölander, A. See Euler, H. von.
 Oelsen, W. See Tammann, G.
 Öman, E., influence of sulphite waste-liquor effluent on the degree of acidity of river water, B., 770.
 Oertel, P., laboratory evaporator, A., 610.
 Oertel, R., recovery of volatile solvents by means of inert gases, (P.), B., 111, 288.
 Oertel, W., work performance and bending strength of high-speed steels, B., 17.

- Oertel, W. See also Moos, M. von.
- Oesterlin, H. See Knoop, F.
- Oesterreichische Chemische Werke Ges.m.b.H., manufacture of stable solutions of peroxides, persalts, and peracids, (P.), B., 894.
- Oettingen, K. von. See Wind, F.
- Oettingen, W. F. von, and Ishikawa, Y., composition of a series of bismuth sodium tartrates, A., 395.
- Oettingen, W. F. von, Sollmann, T., and Schweid, H. H., physical and chemical properties of bismuth sodium citrate and bismuth sodium tartrate, A., 869.
- Oettinger, H., pump for molten salts [especially caustic alkalis], B., 745.
- Oettl, K., impregnation of porous electrodes for primary and secondary cells, (P.), B., 199.
- Offe, G., dry purification [of gas], B., 354.
- Offenheimer, E. See Offenheimer, P.
- Offenheimer, P., Block, S., and Offenheimer, E., (Cellulose-Fabr. Okriflet a/M. P. Offenheimer), papermaking machines, (P.), B., 259.
- Office Central de l'Acétylène et de la Soudure Antogène, impregnation of calcium carbide [to protect it against moisture], (P.), B., 51.
- Ofner, A. See Pfau, A. S.
- Ofner, R., determination of invert sugar in [beet] molasses, B., 103.
- Oftedal, I., X-ray examination of manganese arsenide, iron telluride, nickel stannide, and platinum stannide, A., 574.
- X-ray investigation of stannic sulphide, and titanium disulphide, diselenide, and ditelluride, A., 818.
- crystal structures of the compounds RuS_2 , OsS_2 , MnTe_2 , and AuSb_3 , A., 1079.
- Ogawa, J., reaction of tissues. I. Hydrogen-ion concentration of tissues during fever, A., 441.
- reaction of tissues. II. Hydrogen-ion concentration in the tissue during experimental acidosis and alkalosis, A., 666.
- intracellular hydrogen-ion concentration. I. Method. II. *Entamoeba histolytica* and *E. coli*, A., 674.
- Ogden, C. E., and Kodel Radio Corporation, electrolytic rectifier (P.), B., 374.
- Ogg, A., crystal structure of the isomorphous sulphates of potassium, ammonium, rubidium, and caesium, A., 223.
- Ogg, E. F. See Williams, J. W.
- Ogg, W. G., and Dow, W. T., reaction, exchangeable calcium, and lime requirement of certain Scottish soils, B., 168.
- Ogilvie, J. P., extracts from a [sugar] laboratory notebook, B., 382.
- Ogilvie, J. P., and Farnell, R. G. W., bleaching of off-colour sugar crystals, B., 498.
- Ogura, M., properties of "yamagobo" oil, B., 530.
- O'Hare, T. V., jigs for washing ores, etc., (P.), B., 821.
- O'Harra, B. M., and American Smelting & Refining Co., desilverising of lead bullion, (P.), B., 575.
- O'Harra, B. M. See also Read, C. L.
- Ohio Brass Co. See Applegate, R., Grubl, A. A., and Pipes, P. P.
- Ohki, S. See Minatoya, S.
- Ohle, H., and Erlbach, H., acetone [isopropylidene] compounds of sugars and their transformation products. XII. Displacement of the oxygen bridge during the action of hydrogen bromide-glacial acetic acid on acyl derivatives of monoacetoneglucose [glucose isopropylidene ether], A., 1220.
- Ohle, H., Erlbach, H., and Vargha, L. von, acetone [isopropylidene] compounds of sugars and their transformation products. XI. Conversion of glucose isopropylidene ether into γ -anhydro-glucose, A., 871.
- Ohle, H., Erlbach, H., and Vogl, H., acetone [isopropylidene] compounds of sugars and their transformation products. XIII. Behaviour of completely acylated derivatives of monoacetoneglucose [glucose isopropylidene ether] towards hydrogen bromide-glacial acetic acid, A., 1220.
- Ohle, H., and Vargha, L. von, acetone [isopropylidene] compounds of sugars and their transformation products. IX. Transformation of monoacetoneglucose [glucose isopropylidene ether], A., 870.
- acetone [isopropylidene] compounds of sugars and their transformation products. X. New *p*-toluenesulphonyl-glucose disopropylidene ether, A., 871.
- Ohle, H. See also Auguste-Victoria-Apotheke Rehwald & Weiss.
- Ohlin, C. A. See Blix, G.
- Ohsaka, S., production of artificial silk or films, (P.), B., 852.
- Ohta, K., glucosides of *Fatsia japonica*, Dene. et Plane. I. *Fatsia* sapotoxin. II. Fatsin. III. Biological, A., 48.
- Ohta, T. See Asahina, Y., and Atsuki, K.
- Ohtsuki, T., konjmannan, A., 873.
- Oka, S., electrical conductivity of borax, A., 353.
- removal of mineral substances from gelatin by electro dialysis, B., 206.
- Oka, S. See also Kameyama, N.
- Okabe, L., solubility of cystine under various conditions; preparation of cystine, A., 1363.
- Okáč, A. See Dubský, J. V.
- Okada, H., cellulose esters. I. Depolymerisation and mechanical properties of the nitrates, B., 257.
- Okada, S., Imazu, T., Kuramochi, K., Horiuchi, K., and Tsukahara, T., pancreatic activity in diabetes mellitus, A., 790.
- Okada, S., Sakurai, E., Ibuki, I., and Kabeshima, H., basal metabolism in vitamin-B starvation, A., 91.
- Okada, S., Sakurai, E., Imazu, T., and Kuramochi, K., determination of pancreatic secretion, A., 789.
- Okahara, Y., cetacea. XXV. Oxalic acid content of the urine, A., 84.
- cetacea. XXXIX. Ambraporphyrin, a red pigment from ambergris, A., 85.
- Okamura, I. See Atsuki, K.
- Okamura, T., bufodeoxycholic acid in the bile of *Bufo vulgaris japonica*. I., A., 1272.
- influence of bile acids on nuclease action in the intestine and liver, A., 1401.
- Okamura, Z. See Ueno, S.
- Okatov, A. P., use of dihydroxytartaric acid for the detection and determination of sodium, A., 979.
- Okayama, J., autocatalysis in the formation and decomposition of cupric oxide, A., 1101.
- Okazawa, T., charcoal and its adsorption, A., 1086.
- so-called hygroscopic water of clays, A., 1088.
- clays. XII. Changes of certain clays into acidic ones through weathering, A., 1110, 1211.
- O'Kelly, A. A. See Ekeley, J. B.
- Okie, F. G., and Minnesota Mining & Manufacturing Co., manufacture of a composite adhesive [for sand paper], (P.), B., 364*.
- Okinaka, C., proteins. V. Glutamic acid, A., 435.
- Okochi, M., production of volatile hydrocarbons such as gasoline, benzene, or other hydrocarbon oils contained in natural gas, coal gas, water-gas, air, or other gaseous mixtures, (P.), B., 252.
- Okochi, T. See Wooyenaka, K.
- Okoloff, F. S., determination of corncockle in flour by hæmolysis, B., 545.
- Oku, I., action of insulin on the lipins of the blood, A., 331.
- Oku, M., E.M.F. between copper and its amalgam and the reproducibility of the copper electrode, A., 1192.
- Okubo, J., and Hamada, H., metallic spectra excited by active nitrogen, A., 210.
- Okuda, V., determination of nicotine and ammonia in tobacco, B., 836.
- Okuda, Y., and Nishijima, Y., zinc chloride-nitroprusside reaction of cysteine, A., 1363.
- Okuhara, H. See Minatoya, S.
- Okumura, Z. See Ueno, S.
- Okune, N., physico-chemical phenomena during regeneration. I. Determination of the hydrogen-ion concentration of the regenerating extremities of the axolotl, A., 916.
- Okunev, N., spectrophotometric studies of the two components of trypan-blue (adsorption theory of vital staining), A., 439.
- function of the cells of the reticulo-endothelial apparatus; problem of permeability, A., 793.
- importance of lipins in cell permeability, A., 1276.
- Olbrich, L. See Kailan, A.
- Olcott, C. A., and Hepworth, Co., S. S., centrifugal machine, (P.), B., 73.
- Oldenberg, O., intensity distribution in Wood's resonance spectrum of iodine, A., 338.
- fluorescence of mercury-inert gas bands, A., 346.
- quenching of mercury vapour fluorescence by the addition of other gases, A., 1304.
- Oldham & Son, Ltd., and Wilde, W. D., galvanic batteries, (P.), B., 760.
- Oldright, G. L., and Schroeder, F. W., smelting copper in the reverberatory furnace, B., 818.
- Oliaro, T. See Rothlin, E.
- Oliphant, F. M., air-seasoning and conditioning of timber, B., 15.

- Oliphant, *M. L.*, effects produced by positive-ion bombardment of solids: metallic ions, A., 933.
selective adsorption from gaseous mixtures by a mercury surface formed in the mixture, A., 1087.
- Olita, *C.*, volcanic gases from Agnano, A., 1209.
- Oliver, *E. V.*, water still, (P.), B., 914.
- Oliver, *J. H.* See Harman, *H. W.*
- Oliver, *S. C. J.*, and Berger, *G.*, mechanism of the hydrolysis of organic compounds, A., 44.
- Oliver Continuous Filter Co. See Backus, *G. S.*, and Borden, *J. F.*
- Oliveri-Mandalà, *E.*, and Riccardi, *G.*, rapid determination of urotropine, B., 35.
- Olivier, *G.*, and Société Anonyme le Pétrole Synthétique, process of treating methane, (P.), B., 664.
- Ollivier, *H.*, thermal variation of magnetic rotatory power when the magnetisation coefficient is positive and independent of temperature, A., 573.
- Olmstead, *P. S.* See Lowry, *H. H.*
- Olmsted, *W.* See Norris, *J. F.*
- Olpin, *A. R.* See Ives, *H. E.*
- Olpin, *H. C.*, and Celanese Corporation of America, dyeing of materials made with or containing cellulose derivatives, (P.), B., 926*.
- Olpin, *H. C.* See also British Celanese, Ltd., and Ellis, *G. H.*
- Olsen, *A. G.* See Fine, *M. S.*
- Olsen, *C.*, determination of nitrogen in soils, B., 101.
significance of hydrogen-ion concentration for the cycle of nitrogen transformation in the soil, B., 764.
- Olsen, *G. F.*, and General Petroleum Corporation of California, neutralising treatment of acid oils for lubricant stocks; treatment of lubricant stocks, (P.), B., 358.
- Olsen, *J. C.*, Quell, *M. H.*, and Holley, *W. G.*, corrosive effect of nitric, hydrochloric, and sulphuric acids on pure lead and lead containing small amounts of copper and antimony, A., 138.
- Olsen, *O. S.*, and Clegg, *W. F.*, treatment of sacchariferous [sugar] solutions, (P.), B., 103.
- Olson, *A. R.*, and Meyers, *C. H.*, hydrogen-ethylene reaction in presence of excited mercury atoms, A., 150.
- Olson, *H. F.*, polarisation of resonance radiation in mercury, A., 1167.
- Olson, *H. F.* See also Ellett, *A.*
- Olsson, *H.*, relationship between velocity of hydrolysis by alkali and structure of esters, A., 599.
- Olsson, *J. G.* See Aktiebolaget Svenska Fläktfabr.
- Olzowski, *B.*, thalleioquinine reaction, A., 436.
- Olzowski, *W.*, monochloroamine as a disinfectant for swimming baths, B., 318.
- Olzowski, *W.*, and Radestock, *H.*, determination of free chlorine in drinking and washing water, B., 38.
- Oltman, *J. W.*, and Barrett Co., heat-exchange cylinder, (P.), B., 551.
- Oman, *D. E.*, washing and treatment of sulphite-cellulose during its preparation, B., 564.
- Omura, *S.*, and Nitta, *K.*, effect of insulin on fat content of body and organs, A., 90.
- O'Neill, *G. D.*, and Westinghouse Lamp Co., [clean-up material for] electron-discharge device, (P.), B., 339.
- O'Neill, *H.*, historical note on density changes caused by the cold-working of metals, B., 302.
twin-like crystals in annealed α -iron, B., 407.
hardness and its relation to the cold-working and machining properties of metals. II., B., 787.
- Onnes, *H. K.* See De Haas, *W. J.*
- Onoda, *T.*, overvoltage. IV. Measurement of minimum overvoltage from the current-voltage curve. V. Relationship between minimum overvoltage and current density, A., 713.
ionisation curve of pure oxygen for α -rays from polonium, A., 1169.
- Onoda, *T.* See also Bodenstein, *M.*, and Joliot, *F.*
- Onohara, *J.* See Kita, *G.*
- Onorato, *E.*, pelagosit from Tremonti, Adriatic Sea, A., 1350.
- Onsager, *L.*, activity coefficients and mass-action law in electrolytes, A., 1188.
- Onslow, *M. W.*, and Robinson, *M. E.*, oxidising enzymes. X. Relationship of oxygenase to tyrosinase, A., 1282.
- Oœuvre, *J.* See Grignard, *V.*
- Oosterveld, *H.* See Hissink, *D. J.*
- Ootuka, *H.*, and Schay, *G.*, highly attenuated flames. IV. Sodium-iodine flame. V. Sodium-mercuric chloride flame, A., 1339.
- Oparin, *A. I.*, and Djatschkov, *N.*, enzyme formation in ripening seeds, A., 926.
- Oparin, *A. I.* See also Bach, *A. N.*
- Oparina, *M. P.* See Tschitschibabin, *A. E.*
- Open Hearth Combustion Co. See Atkinson, *J. S.*, Danforth, *G. L.*, jun., and McKune, *F. B.*
- Opotzki, *V.* See Petrenko-Kritschenko, *P.*
- Oppé, *A.*, drying vessel, A., 610.
- Oppenheim, *R.*, and Société Anonyme le Carbone, lead accumulator, (P.), B., 416*.
[electrodes for] batteries, electric accumulators and electrolysing apparatus, (P.), B., 864*.
- Oppenheimer, *F.*, effect of addition of small amounts of metals of alkalis and alkaline earths on the capillarity constant of mercury, A., 702.
- Oppenheimer, *F.* See also Heymann, *E.*, and Magnus, *A.*
- Oppenheimer, *J. R.*, quantum theory of aperiodic effects, A., 216.
quantum theory of the capture of electrons, A., 456.
quantum theory of the Ramsauer effect, A., 568.
quantum theory of electronic impacts, A., 1170.
- Oppenheimer, *R.* See Born, *M.*
- Oppermann & Deichmann. See Zacharias, *L.*
- Orcel, *J.*, composition of chlorites, A., 503.
microscopical examination of metallic minerals, A., 976.
- Orcel, *J.*, and Plaza, *G. R.*, microscopical study of some metallic minerals from Poru, A., 503.
- Orchard, *J. L.*, and Cambridge Instrument Co., Ltd., thermoelectric pyrometers, (P.), B., 529.
- Ordish, *H. G.* See Mills, *W. H.*
- Orent, *E. R.* See Shelling, *D. H.*
- Orland, *J.*, influence of pearlitisation below the Ar₁ point on the mechanical properties of carbon steels, B., 752.
- Orlov, *A.*, members of the zoisite-epidote group poor in iron, A., 1210.
- Orlov, *E. I.*, action of sulphur monochloride on diphenylamine, and the preparation of trithiodiphenylamine and of other diphenylamine derivatives from diphenylamine, A., 1237.
action of potassium ferricyanide on sodioformanilide in alkaline solution; preparation of quinones and imides, A., 1249.
ammonia-soda process: physicochemical action of the carbon dioxide tower, B., 602.
- Orlov, *H.* See Ipatiev, *V. N.*
- Orlov, *N. A.*, rare-earth elements, A., 731.
dissociation of phenanthrene by heat in the presence of hydrogen under pressure, A., 747*.
- Orlova, (*Frau*) *L.*, adsorption phenomena in solutions. XII. Electroendosmosis, A., 701.
- Orlovski, *S.*, action of dichromate ions on manganous ions, A., 605.
- Ormandy, *W. R.*, manufacture of nitric acid, (P.), B., 814.
- Ormandy, *W. R.*, and Craven, *E. C.*, action of strong sulphuric acid on olefines and alcohols, B., 148.
effect of thermometric lag in fractional distillation, B., 287.
- Ormont, *B.*, electrochemical preparation of Berlin-blue, A., 489.
use of filters of known weight in quantitative analysis, A., 857.
- Ormont Associates, Inc., *B.*, production of lighter hydrocarbons, (P.), B., 252*.
- Orndorff, *W. R.*, and Beach, *I. T.*, 2:7-dimethylsulphone-fluoran, 2'-hydroxy-5'-toluoylbenzene-2-sulphonic acid, and some of their derivatives, A., 768.
- Orndorff, *W. R.*, Gibbs, *R. C.*, McNulty, (*Miss*) *S. A.*, and Shapiro, *C. V.*, absorption spectra of benzene and toluene in alcoholic solution; detection of benzene as impurity in organic compounds, A., 513.
- Orndorff, *W. R.*, Gibbs, *R. C.*, and Shapiro, *C. V.*, absorption spectra of fluorescein, fluoran, and related compounds, A., 526.
- Orndorff, *W. R.*, and Shapiro, *C. V.*, quinolsulphonephthalein and some derivatives, A., 1020.
- Orndorff, *W. R.*, and Todd Co., Inc., safety paper, (P.), B., 478.
- OrNSTEIN, *G.*, production of solutions and compounds of chlorine, (P.), B., 52.
- OrNSTEIN, *L. S.*, liquid crystals, A., 1172.
- OrNSTEIN, *L. S.*, and Burger, *H. C.*, intensity of forbidden multiplets, A., 450.
origin of the helium spectrum, A., 1166.
- OrNSTEIN, *L. S.*, and Held, *E. F. M. van der*, absolute intensity measurements on the sodium flame; duration of the excited state, A., 679.
- OrNSTEIN, *L. S.*, Kapuscinski, *W.*, and Eymers, (*Miss*) *J. G.*, intensity measurements in the secondary spectrum of hydrogen, A., 678.

- Ornstein, L. S., and Wijk, W. R. van, intensity distribution in the negative nitrogen band spectrum, A., 930.
- Ornstein, L. S., Zernike, F., and Snoek, J. L., jun., doublet components of H_{α} in the absorption spectrum of hydrogen, A., 449.
- Ornstein, L. S. See also Snoek, J. L., jun.
- Orr, A. P. See Marshall, S. M.
- Orr, J. B., Godden, W., and Dundas, J. M., iodine in drinking waters, B., 694.
- Orr, J. B., Kelly, F. C., and Stuart, G. L., effect of iodine manuring on the iodine content of plants, B., 311.
- Orr-Ewing, J., and Reader, V., *Meningococcus* as a source of growth factor for *Streptothrix corallinus*, A., 552.
- Streptothrix corallinus* in the determination of vitamin-B₁, A., 556.
- Orr-Ewing, J. See also Peters, R. A.
- Orsi, A., and Villa, L., comparative study of the physical characters and chemical components of blood and of serous discharges, A., 666.
- Ort, J. M., insulin and amino-acid catalysis [of the oxidation of dextrose and laevulose by hydrogen peroxide], A., 487.
- Orth, O., automatic pipette, A., 1110.
- Orthaus, destruction of concrete and ferroconcrete [in gas works]; its origin, prevention, and cure, B., 334.
- Orthmann, A. C., evaluation of raw stock [skins], B., 204.
- properties of leather; retan solo leather, B., 533.
- Orthmann, W., and Fringsheim, P., influence of vapour pressure on the intensity and broadening of mercury resonance lines, A., 338.
- Orthmann, W. See also Nernst, W.
- Orthner, L., pinacolin transformation in *N*-ring pinacones, A., 184.
- acetone compounds of pentaerythritol, A., 270.
- Ortlepp, J. A. L., rotating tube drying furnace, B., 485.
- Orton, E., jun., and Krebhiel, J. F., influence of different felspars on the "freezing" behaviour of cones, B., 605.
- Orton, K. J. P., Soper, F. G., and Williams, G., chlorination of anilides. III. *N*-Chlorination and *C*-chlorination as simultaneous side-reactions, A., 628.
- Orton, K. J. P. See also Bradfield, A. E.
- Ory, G. See Woudhuysen, J.
- "Osa" Participations Industrielles Société Anonyme, electrical insulators of glass, (P.), B., 264.
- lead glasses, (P.), B., 264.
- Osaka, H., transition points of compounds of organic solvents and salts, A., 1095.
- Osaka, Y., and Yaginuma, T., system $\text{FeCl}_2\text{-NiCl}_2\text{-H}_2\text{O}$ at 25°, A., 20.
- equilibria in systems containing water and chlorides of iron, cobalt, and nickel, A., 367.
- Osann, B., mechanism of the blast-furnace [smelting of iron ores] with reference to sintering and the precipitation of carbon, B., 860.
- Osanto, M., Killian, J. A., Garcia, T., and Mattie, M. R., blood and cerebrospinal fluid in epilepsy, A., 915.
- Osborne, A. G. See Ford, K. L.
- Osborne, H. H., and American Magnesium Corporation, protection of molten magnesium, (P.), B., 271.
- Osborne, J. L. See Buchanan, G. H.
- Osborne, W. A., volatile sulphide from muscle, A., 1271.
- Osborne, W. B. See Gould, W. S.
- Osgood, T. H., X-ray spectra of long wave-length, A., 2.
- O'Shaughnessy, B. P., rate of desilverisation of the wet collodion silver bath, B., 348.
- Oshima, K., protease and amylase of *Aspergillus oryzae*, B., 765.
- Oshima, Y., volatile matter and reactivity of coke, B., 735.
- Oshima, Y., and Tashiro, S., hydrogenation of Japanese coals, B., 775.
- Osman, A. E., continuous kilns for burning [ceramic products] and like purposes, (P.), B., 193.
- Ossa, A. A., manufacture of metals and chemicals by means of iodine, (P.), B., 270.
- Ossenbrügen, W., classification of the band spectra associated with the neutral oxygen molecule, A., 930.
- Ossing, S. F., and Jeffrey Manufacturing Co., crushing apparatus, (P.), B., 772.
- Osswald, P. See I. G. Farbenind. A.-G.
- Ost, H., new isocellotriose, A., 872.
- Osten, F. W. R., preparation of addition compounds of deoxycholic acid possessing bactericidal properties, (P.), B., 427.
- Osterberg, A. E., electrolytic determination of arsenic in biological material, A., 336.
- [preparation of] ethyl phthalimidomalonate, A., 413.
- comparison of the Folin-Wu and new Benedict methods for the determination of blood-sugar, A., 1045.
- Osterberg, A. E., and Schmidt, E. V., influence of sodium fluoride and thymol on determination of urea by urease method, A., 539.
- determination of plasma-chloride, A., 1391.
- Osterhof, H. J. See Bartell, F. E.
- Ostermann, F., structure of brass tubes; surface faults in bent tubes and their prevention, B., 487.
- Ostertag, J., preventing the formation of incrustation or scale in boilers caused by salts of silicic acid, (P.), B., 214.
- Ostro Products Corporation of America. See Ostromislensky, I.
- Ostromislensky, I., and Naugatuck Chemical Co., powdered vitreous polymerised styrene and homologues, (P.), B., 827*.
- Ostromislensky, I., and Ostro Products Corporation of America, manufacture of a [non-toxic] medical preparation containing arsenic, (P.), B., 140.
- Ostromislensky, I., and Pyridium Corporation, arylazodiaminopyridines useful as bactericides; pyridium; neopyridium; phenyl [benzene] azo-*aa*-diaminopyridine dihydrochloride, (P.), B., 837.
- Ostwald, U., preparation of layers for surface-printing processes, (P.), B., 245.
- Ostwald, W., and Steinbach, W., grinding processes, B., 111.
- Ostwald, Wolfgang, adsorption anomalies, A., 120.
- viscosimetry of colloidal systems, A., 123.
- viscosity anomalies of sols in the Couette apparatus, A., 123.
- "solid-phase" rule, A., 235.
- role of dielectric constants, polarisation, and dipole moment in colloid systems, A., 705.
- role of dielectric constants, polarisation, and dipole moment in colloid systems. II. Stability relations of weakly solvated pure organosols, A., 835.
- role of dielectric constants, polarisation, and dipole moment in colloid systems. III. The behaviour of organosols containing electrolytes, A., 1091.
- Ostwald, Wolfgang, Auerbach, R., and Feldmann, J., sols with structure-viscosity. I. Viscosimetry of ammonium oleate sols. II. Structure-turbulence of sols of cotton-yellow and mercury sulphosalicylate, A., 123.
- Ostwald, Wolfgang, and Egger, J., preparation of colloidal sulphur by means of hydrazine, A., 122.
- Ostwald, Wolfgang, and Föhre, A., viscosimetry of lubricating oils. I. and II., B., 630, 700.
- Ostwald, Wolfgang, and Frenkel, G., kinetic studies on the formation of starch paste. I. Formation of starch paste in the cold, A., 122.
- Ostwald, Wolfgang, and Köhler, Rudolf, effect of the degradation products of gelatin on its separation by sulphosalicylic acid, and a technical method for testing gelatin, A., 125.
- separation of gelatin sols into two liquid layers by sulphosalicylic acid in relation to the phase rule, A., 125.
- effect of neutral salts on the formation of two liquid layers from the system gelatin-sulphosalicylic acid-water, A., 125.
- relations of the solid phase in the swelling and dissolution of gelatin, A., 237.
- Ostwald, Wolfgang, and Meissner, M., membranometric [surface skin formation] researches on colloidal solutions, A., 473.
- Ostwald, Wolfgang, and Rödiger, W., dissolution and peptisation of humic acid by sodium hydroxide, B., 136.
- Ostwald, Wolfgang, and Schmidt, Harry, kinetic investigation of the peptisation of aluminium hydroxide, A., 126.
- Ostwald, Wolfgang, Steinbach, W., and Köhler, R., "solid-phase" rule in the production of coarsely disperse systems, A., 234.
- Ostwald, Wolfgang, Trakas, V., and Köhler, R., validity of the Hagen-Poiseuille law for vegetable oils, B., 901.
- Ostwald, Wolfgang, and Wolf, A., dispersoid chemistry of peat. V. Dehydration of peat at temperatures below 100°, B., 113.
- O'Sullivan, J. B., p_H of buffered salt solutions, A., 590.
- O'Sullivan, (Miss) K. See Reilly, J.
- Osvold, G., and Winthrop Chemical Co., Inc., disinfection of seeds, (P.), B., 539.
- Osvold, G. See also I. G. Farbenind. A.-G.
- Oswald, M., manufacture of carbons for electrotechnical uses, (P.), B., 490.
- Oswald, W. See Reihlen, H.
- Ota, Y. See Ueno, S.

- Otavi Minen- & Eisenbahn-Gesellschaft, production of metals and their compounds free from phosphorus, (P.), B., 124.
- Otavi Minen- & Eisenbahn-Gesellschaft. See also Nathansohn, Metall- & Farbwerke A.-G., A.
- Othmer, D. F., composition of vapours from boiling binary solutions, A., 943.
- Othmer, D. F., and Coats, H. B., measurement of surface temperature, B., 215.
- Otis, A. N., Woolston, L. F., and General Electric Co., [annealing] furnace, (P.), B., 931.
- Otryganiev, A. V., and Balanda, D. V., effect of different fertilisers on the amount and quality of tobacco crops, B., 343.
- Ott, E., X-ray examination of highly-polymerised organic substances, A., 465.
- decomposition of carbon monoxide in the corona due to alternating electric fields, A., 720.
- manufacture of ω -chloroacetylpyrocatechol [3:4-dihydroxyphenacyl chloride], (P.), B., 624.
- Ott, E. [with Sehnürmann, F.], semi-hydrogenation of the acetylenic linking and dependence of the geometrical configuration of the ethylenic compound so formed on the rate of reaction, A., 1351.
- Ott, E. [with Schröter, R., and Behr, A.], additive reactions of the ethylenic linking with formation of ethane compounds containing two asymmetric carbon atoms formed during the additive process and the influence of the velocity of reaction on its course, A., 1350.
- Ott, E., and Behr, A., active component of the Bertram root [*Radix pyrethri*], A., 50.
- Ott, H., crystal structure of graphite, A., 349.
- structure analysis, A., 821.
- Ott, L. See Spencer, C. D.
- Ott, P. See Wagner, Ernst.
- Otte, W., and Weiss, Hans, comparative examination of commercial cardamoms, B., 835.
- Ottensoefer, F., and Strauss, E., immuno-chemical investigation of globin and globin derivatives, A., 540.
- Ottenstein, B. See Neuberg, C.
- Ottmer, R., absorption spectra of photo-electrically conducting crystals, A., 457.
- Otto, C., indican in urine analysis, A., 789.
- reducing power of urine, A., 914.
- Otto, E. See Fry, H. S.
- Otto, J. See Henning, F.
- Otto, M. See Hofmann, F.
- Otto & Compagnie G.m.b.H., C., coke quenching and loading appliances, (P.), B., 292.
- coke ovens, (P.), B., 701.
- Otto & Compagnie G.m.b.H., C. See also Naaml. Vennoots. Silica en Ovenbouw Mij.
- Outhouse, J., Macy, I. G., and Brekke, V., human milk. V. Comparison of vitamin-D in human and cow's milk, A., 926.
- Overdick, F. See Terres, E.
- Overhoff, J. See Wibaut, J. P.
- Overman, O. R., and Sanmann, F. P., milk composition and energy, A., 319.
- Overman, O. R., and Wright, K. E., effect of inanition on yield and composition of cow's milk, A., 195.
- Overstraeten, C. van, extracting and purifying the fatty materials contained in waste waters from the washing of wool, (P.), B., 636.
- Overstrom, G. A., pyro-electrical separation of finely-divided materials, (P.), B., 791.
- Ovetschkin, B. See Komarovski, A.
- Owen, B. J., dehydration of vegetable substances or products of organic origin, (P.), B., 311.
- desiccation of sugar beet and the extraction of sugar, B., 459.
- treatment of effluents from beet sugar factories, B., 499.
- Owen, B. J., and Stead, G. C., preserving sugar-beets for production of sugar therefrom, (P.), B., 832.
- Owen, G. G. See Lowry, T. M.
- Owens, W. M. See Heilbron, I. M.
- Ow-Eschingen, M., increasing the electric disruption strength or resistance of films consisting of cellulose esters or ethers, (P.), B., 824.
- Owruisky, H., swelling of hide, B., 25.
- Oxweld Aceylene Co. See Franks, R.
- Oya, T., and Harada, K., amylase in pyloric caeca of *Sariola quinqueradiata*, A., 393.
- Oya, T., and Shimada, K., glycogenase in fish muscle. I., A., 1280.
- Ozaki, J., relative nutritional values of fats. II., A., 86.
- nutritive value of fat. III., A., 324.
- Ozberger, R., copper-tin-nickel alloy, (P.), B., 271*.

P.

- Paasch, G., action of glycine on blood-sugar, A., 1151.
- Pabst, A. See Lindermann, H.
- Pace, E., behaviour of ethyl diethylacetate in the organism, A., 668.
- diteritary glycols and certain of their heterocyclic derivatives, A., 1113.
- Pacific Coast Borax Co. See Cramer, T. M., and Jacobi, K. J.
- Pacific Distributing Corporation. See Purdy, M. A.
- Pacific Lumber Co. See Leaver, J. M.
- Pacific Nitrogen Corporation. See Dannenbaum, W.
- Pacific Portland Cement Co., Consolidated. See Colton, J. H.
- Pacific-Southwest Trust & Savings Bank. See Curtis, T. S.
- Pacini, A. J., and Richter, C. M., production of antirachitic substances, (P.), B., 767.
- Packard Motor Car Co. See Bentley, M., and Peterson, W. C.
- Packendorff, K. See Küster, W.
- Packer, J. See Doak, B. W.
- Pacsu, E., transformation of β -glucosides and β -acetylsugars into their α -varieties, A., 275.
- action of titanium tetrachloride on derivatives of sugars. I. Preparation of α -acetochlorosugars and transformation of β -methylglucoside into its α -form, A., 1118.
- Padoa, M., and Vita, N., photochemical yields with complex light. V., A., 378.
- photochemical reactions promoted by intermittent monochromatic light, A., 1102.
- Padovani, C. See Levi, M. G.
- Paessler, J., tannin analysis, B., 722.
- Paffrath, H., and Consten, A., elimination of yellow vegetable colouring matters in human milk, A., 319.
- Pagani, C. See Charrier, G.
- Page, A. R. See Birmingham Small Arms Co., Ltd.
- Page, A. W. See Page, R. O.
- Page, R. O., and Page, A. W., influence of neutral salts on the plumping of hides, B., 25.
- Pagel, G., and General Electric Co., heat-exchange device, (P.), B., 72.
- Paget, H. See Henry, T. A.
- Paget, M., and Lohéac, P., determination of adrenaline in suprarenal glands, B., 729.
- Paget, M. See also Raquet, D.
- Pagliarolo, M. L., refractive and natural rotatory dispersion, A., 220.
- [rotatory dispersion of alkyl aspartates], A., 817.
- Pahl, A., production of molten liquid, coats of enamel, glass, etc. by spraying upon metal, stone, or other surfaces or bodies, (P.), B., 125.
- production of filter-sieves, (P.), B., 144.
- Pahlavouni, E., theory of concentrated solutions. IV. Rosanov's method for the study of the composition of the vapour phase in equilibrium with a binary mixture of volatile liquids, A., 127.
- Paige & Jones Chemical Co., Inc. See Partridge, E. M.
- Pailly, M., condensation of liquids as mists, B., 247.
- Paine, H. H., cataphoresis in copper oxide sols; application of Debye and Hückel's theory of electrolytic conduction to colloid particles, A., 1093.
- Paine, H. S., Keane, J. C., and McCalip, M. A., influence of phosphate and colloid contents of cane juice on defecation, B., 460.
- Paine, H. S. See also Badollet, M. S., Balch, R. T., Birkner, V., and Keane, J. C.
- Paisseau, J., varnishing of wood, (P.), B., 232.
- Paisseau, J., and Germain, R. A., treatment of skins containing calcified formations, (P.), B., 723.
- Pakschver, A. B. See Scharvin, V. V.
- Pakulla, E., and Deutsche Edelstahlwerke Akt.-Ges., manufacture of a steel alloy [for permanent magnets], (P.), B., 336.

- Palache, C., and Baner, L. H., megovernite from Sterling Hill, N.J., A., 1350.
cahnite from Franklin, N.J., A., 1350.
- Palache, C., Bauer, L. H., and Berman, H., larsenite and calcium-larsenite, from Franklin, N.J., A., 1349.
- Palache, C., and Shannon, E. V., holdenite from Franklin, N.J., A., 1350.
- Palazzo, F. See Fernandes, L.
- Palfray, L., and Duboc, T., *m*-4-xyleneol and some derivatives, A., 168.
- Palfray, L., and Rothstein, B., derivatives of quinitol, A., 632.
- Palfray, L., and Rothstein, L., stereoisomerides of quinite (1 : 4-cyclohexanediol), A., 518.
- Palfray, L., and Sabatay, S., cyclohexyloxy-derivatives, A., 1129.
ethers of cyclohexanediols, A., 1130.
- Palfray, L. See also Sabatay, S.
- Palit, C. C., and Dhar, N. R., oxidation of carbohydrates, fats, and nitrogenous products by air in presence of sunlight, A., 1103.
- Palkin, S. See Watkins, H. R.
- Palladin, A., avitaminosis and metabolism, A., 206.
- Palladin, A., and Epelbaum, S., creatine phosphoric acid, creatine, and lactacidogen content of white and red muscles of the guinea-pig, A., 1393.
- Palladin, A., and Ferdmann, D., influence of the "training" of muscles on their creatine content, A., 546.
- Palladin, A., and Savron, E., creatinuria in children and its dependence on the thyroid gland, A., 195.
avitaminosis. XI. Influence of scurvy and fasting on the chemical composition, especially on the creatine content, of brain, A., 1395.
- Palladin, A., and Utevski, A., avitaminosis. X. Formation of acetaldehyde in the muscle of normally vitamin-lacking and fasting pigeons, A., 1395.
avitaminosis. IX. Influence of the character of the food on the blood-sugar curve in experimental scurvy and on the sensitivity of guinea-pigs to insulin, A., 1405.
- Palladin, A., Utevski, A., and Ferdmann, D., avitaminosis. VIII. Influence of avitaminosis of normal and thyroidectomised rabbits on the nitrogen-, creatine-, and creatinine-excretion and on the blood-sugar, A., 1288.
- Palladin, A., and Zuverkalov, D., avitaminosis. VII. Influence of experimental scurvy on the synthesis of hippuric acid, A., 791.
- Palm, E. C., and Thorsson, H. T., cement compositions, (P.), B., 449.
- Palmén, J., derivatives of camphorquinone, A., 182.
santenonequinone and a general method for the preparation of diketones, A., 425.
cooking of spruce chips with sulphur dioxide solutions of high concentration, B., 119.
- Palmer, C. S., and Kester, E. B., *p*-arsinophenoxyacetic acid, A., 433.
- Palmer, C. S., and McWherter, P. W., [preparation of] ethyl bromomalonate, A., 394.
- Palmer, C. S., and Scott, A. B., pure arsenobenzene and the molecular complexity of arsenobenzene and arsenomethane, A., 433.
- Palmer, H. B., concentration of [radio]active deposit, (P.), B., 140.
- Palmer, H. F. See Shepard, N. A.
- Palmer, I. A. See Weinig, A. J.
- Palmer, J. R. See Mohlman, F. W.
- Palmer, L. S., and Kennedy, C., food requirements of the growing rat. II. Effect of variation in proportion and quality of recognised nutrients, A., 206.
- Palmer, L. S. See also Haag, J. R., Kennedy, C., and Sweetman, M. D.
- Palmer, R. See British Thomson-Houston Co., Ltd.
- Palmer, R. C., and Newport Co., treatment of rosin, (P.), B., 614.
- Palmer Corporation. See Fulton, W. F.
- Palomaa, M. H., and Juwala, A., rate of hydrolysis of esters of unsaturated alcohols, A., 1212.
- Palomaa, M. H., and Leimu, R., influence of the substitution sequence CH_3 , O, S on reactivity of some aliphatic acids and their esters, A., 272.
- Pamflov, A. V., and Blagonravona, A. A., electro-analytical determination of lead, A., 980.
- Pamflov, A. V., and Fedorova, O., formation of perchlorate during electrolytic production of chlorate, A., 968.
- Pamflov, A. V., and Kisseleva, V. E., determination of aniline by Lehmann's method, B., 885.
- Pan, L. C. See Siemens & Halske A.-G.
- Panek, M. See Dziewoński, K.
- Paneth, F., physical methods in chemical laboratories. I. Introduction, A., 728.
- Paneth, F. [with Gehlen, H., and Günther, P. L.], helium. V. Helium content and the age of meteorites, A., 1349.
- Paneth, F., Gehlen, H., and Peters, K., helium. VI. Helium content of terrestrial gases, A., 1209.
- Paneth, F., and Peters, K., helium. I. Detection of very small quantities of helium [and neon], A., 858.
- Paneth, F., and Peters, K. [with Gehlen, H., and Günther, P. L.], helium. II. Employment of sensitive helium tests in questions of the transformation of the elements, A., 1341.
- Pañganiban, E. H., and Soliven, (Miss) F. A., confirmatory test for aluminium, A., 1206.
- Paniutin, P. S., mechanism of the transformation undergone by ricinoleic acid; pyrogenic decomposition of methyl ricinoleate, A., 617.
- Pankow, U. See Dietzel, R., and Täufel, K.
- Pansegrau, E. See Stoermer, R.
- Panshin, B. A., sugar-carrying plants, B., 541.
- Pansky, A., apparatus for extracting fats at low temperatures, (P.), B., 647.
- Pantaleoni, M., higher toxicity of methyl alcohol in presence of ethyl alcohol, A., 443.
- Panzner, H. See Neumann, B.
- Pape, K. See Schenck, R.
- Papendieck, A., effect of boiling in acid solution on hæmateric acid and its iron compound, A., 534.
- Papish, J., and Agel, F. E., composite yellow, A., 39.
- Papish, J., Brewer, F. M., and Holt, D. A., germanium. XXV. Arc spectrographic detection and determination of germanium; occurrence of germanium in certain tin minerals; enargite as a possible source of germanium, A., 146.
- Papish, J., and Hoag, L. E., detection of uranium by a photoluminescence test, A., 39.
gallium. III. Quantitative separation of [ferrie] iron from gallium by means of 1-nitroso- β -naphthol, A., 981.
- Papish, J., and Holt, D. A., gallium. I. Arc spectrographic detection and determination of gallium. II. Extraction of gallium from lepidolite, A., 265.
- Paquin, M. See I. G. Farbenind. A.-G.
- Parant. See Courtot, C.
- Pare Engineering Co., Ltd. See Player, E.
- Pardoe, H., Pardoe, T., and Hill, H., manufacture of bricks, tiles, etc., (P.), B., 606.
- Pardoe, T. See Pardoe, H.
- Parfentjev, I., action of arsenic on blood ferments, A., 317.
- Parisi, E., quadrivalent vanadium. II. Co-ordination number of vanadium in complex vanadyl salts, A., 301.
influence of p_H and of lead salts on invertases, and preservation of beet pulp for analysis, B., 460.
behaviour of the nitrogen of spent wash in the soil, B., 618.
use of the Dumas-Dennstedt method in the determination of total nitrogen in soils and agrarian products, B., 619.
balsam vinegar of Modena, B., 941.
- Parisi, E. See also Barbieri, G. A.
- Park, C. R., Carson, C. M., and Sebrell, L. B., effect of heat on raw rubber, B., 493.
- Park, C. R. See also Cox, L. B., and Goodwin, N.
- Parke, C. S. See Harshaw, W. J.
- Parke, V. E. See Slade, R. E.
- Parke, Davis & Co., immunising product and method of producing the same, (P.), B., 692.
- Parke, Davis & Co., and Ferry, N. S., preparation of measles toxin and antitoxin, (P.), B., 107.
- Parke, Davis & Co. See also Dox, A. W., and Hamilton, C. S.
- Parker, A. H. See Asiatic Petroleum Co., Ltd.
- Parker, C. H., distillation of coal and similar carbonaceous substances, (P.), B., 843*.
- Parker, C. H. See also Low Temperature Carbonisation, Ltd.
- Parker, F. W., forms and properties of water-soluble phosphorus in soils, B., 869.
- Parker, F. W., and Pierre, W. H., relation between concentration of mineral elements in a culture medium and absorption and utilisation of those elements by plants, B., 534.

- Parker, H. C., indicating equipment for industrial pH measurements, B., 627.
- Parker, H. H. See McKee, R. H.
- Parker, J. G., tintometer [for measuring the colour of tan liquors], B., 905.
- Parker, J. G., and Gilman, J. A., influence of temperature on the tannin yield of pyrogallol tans, B., 165.
- Parker, L. D. See Vickers, Ltd.
- Parker, R. G., and Jackman, D. N., fastness of dyed fabrics to laundering, B., 566.
- Parker, T. W., and Dartmoor China Clay Co., Ltd., bleaching or decolorising of clay or other minerals, (P.), B., 15.
- Parker, T. W., and Robinson, P. L., critical temperatures of boron trichloride and silicon tetrachloride, A., 114.
- Parker Rust Proof Co., Green, M., and Willard, H. H., manufacture of rust-proofing material, (P.), B., 528*.
- rust-proofing [of iron and steel], (P.), B., 931.
- Parker Rust Proof Co. See also Willard, H. H.
- Parke, D. W. See Robinson, H. W.
- Parkin, T. D., manufacture of high resistances, (P.), B., 760.
- Parks, G. S., and Barton, B., vapour pressures of isopropyl and *tert.*-butyl alcohols, A., 228.
- Parks, G. S., Hablutzel, C. E., and Webster, L. E., heat of formation of zinc oxide, A., 22.
- Parks, G. S., and Huffman, H. M., glass. I. Transition between the glassy and liquid states in the case of some simple organic compounds, A., 115.
- Parks, G. S., Huffman, H. M., and Cattoir, F. R., glass. II. Transition between the glassy and liquid states in the case of dextrose, A., 1189.
- Parks, G. S., and Kelley, K. K., application of the third law of thermodynamics to some organic reactions, A., 709.
- Parks, G. S., and Nelson, W. K., heats of vaporisation of isopropyl alcohol and ethyl alcohol, A., 227.
- Parnele, H. B., Fred, E. B., Peterson, W. H., McConkie, J. E., and Vaughn, W. E., relation of temperature to rate and type of fermentation, and to quality of commercial sauerkraut, B., 241.
- Parnele, H. B. See also Peterson, W. H.
- Parnelee, A. E., and Du Pont de Nemours & Co., E. I., preparation of triarylguanidines, (P.), B., 474.
- production of β -naphthol-1-sulphonic acid, (P.), B., 474.
- Parnelee, A. E. See also Calcott, W. S., and Daudt, H. W.
- Parnelee, C. L., Isom, E. W., and Sinclair Refining Co., cracking oils, (P.), B., 663.
- Parnelee, C. L. See also Isom, E. W.
- Parnelee, C. W., and McVay, T. N., ball and china clays, B., 263.
- Parnelee, C. W. See also Talwalkar, T. W.
- Parmlay, T. J., photo-electric threshold of single bismuth crystals, A., 8.
- Parnas, J. K., blood-ammonia, its formation and physiological behaviour, A., 315.
- Parnas, J. K., Mozolowski, W., and Lewinski, W., ammonia content of blood. IX. Variation of ammonia content with muscular work, A., 86.
- Parow, E., evaluation of potatoes according to the starch content, B., 910.
- Parow, E., Stirnus, A., and Ekhard, W., adhesiveness of rice, maize, and wheat starches in comparison with potato starch, B., 206.
- Parr, S. W. See Coffman, A. W., and Urbana Coke Corporation.
- Parravano, N., and Malquori, G., molybdenum sulphides. I. Pressure of sulphur vapour from molybdenum trisulphide, A., 479.
- molybdenum sulphides. II. Equilibrium of reduction of molybdenum disulphide by hydrogen, A., 480.
- equilibrium in the reduction of tungsten disulphide by hydrogen, A., 594.
- reduction of silver sulphide by means of carbon, A., 844.
- reduction of metallic sulphides by carbon, A., 853.
- thermal decomposition of Bayer's alumina, A., 1190.
- Parrish, P. See South Metropolitan Gas Co.
- Parry, N. G., and Koppers Co., coking retort oven, (P.), B., 394.
- Parshin, A. N. See Engelhardt, W. A.
- Parsons, A. L., dehydration of gypsum, A., 852.
- Parsons, A. L. See also Walker, T. L.
- Parsons, A. T. See Francis, A. G.
- Parsons, (Sir) C. A., and Duncan, H. M., casting of ingots, (P.), B., 528*.
- Parsons, C. E., and Metal Research Corporation, manufacture of substantially pure hydrogen, (P.), B., 262.
- Parsons, J. L., recent work on the oxidation of cellulose, B., 477.
- Parsons, L. B., and Sturges, W. S., metabolism of the anaerobes. I. Proteolysis by *Clostridium putrefaciens* compared with that of other anaerobes. II. Relation between the volatile acid and ammonia production during metabolism of *C. putrefaciens*. III. Volatile acids produced by *C. putrefaciens* in cooked-meat medium, A., 924.
- Parsons, T. R., lipin-protein complexes. I. Lecithin-caseinogen complexes, A., 837.
- Partale, W. See Arndt, F.
- Partington, J. R., and Tweedy, S. K., viscosities of chromic anhydride solutions, A., 11.
- double compound of chromic and hydrogen chlorides, A., 34.
- Partington, J. R., and Wallsom, H. E., sodium pyrophosphates, A., 380.
- Partington, J. R. See also Hawkins, F. S., and Husain, S.
- Partos, A., regulation of carbohydrate metabolism. I. Lactic acid as activator of liver prodiastase, A., 1049.
- regulation of carbohydrate metabolism. II. Role of lactic acid in intermediary carbohydrate metabolism. III. Action of electrolytes on blood-sugar, A., 1276.
- Partos, A., and Švec, F., regular relation between blood-sugar and speed of coagulation of blood, A., 663, 912.
- Partridge, E. M., Scarritt, E. W., and Paige & Jones Chemical Co., Inc., preparation of an artificial base-exchange substance, (P.), B., 191.
- Partridge, H. M. See Müller, R. H.
- Partridge, J. H., magnetic and electrical properties of cast iron, B., 785.
- Parts, A., properties of simple amides, A., 158.
- heat of combustion of some secondary and tertiary amides, A., 368.
- Pascal, J., [synthesis of the diastereoisomeric trisubstituted α -glycols], A., 1353.
- Pascal, P., inflammability of nitro-cottons. I. and II., B., 108.
- Paschen, F., light excitation [of metallic spectra] by means of the metastable state in atoms of noble gases, A., 97.
- Rydberg term tables, A., 677.
- Paschke, M., utilisation and behaviour of zinciferous [iron] ores, especially Meggen burnt pyrites, in the blast furnace, B., 159.
- Pasiut, L. See Jackson, E. L.
- Passalacqua, A., solder for aluminium and its alloys, (P.), B., 58.
- Passamaneck, E. See McCracken, R. F.
- Passerini, L. See Natta, G.
- Passerini, N., and Galli, P., action of sodium chloride in irrigation water on certain plants, B., 343.
- Pasternack, J. G. See Garrison, A. D.
- Pasternack, R., and Pfizer & Co., C., laxative, (P.), B., 913.
- Pastorello, S., stability of rhodium sesquioxide and of iridium dioxide, A., 976.
- Patart, G. L. E., heating of catalysts for pressure-synthesis of gas mixtures, (P.), B., 886.
- Pátek, K. See Blechta, F.
- Patel, C. K., influence of heat on the affinity of cotton for dyes, B., 854.
- Patel, C. K. See also Scholefield, F.
- Patel, M. M. See Meldrum, A. N.
- Patent Retorts, Ltd., and Davidson, T. M., water-gas generators for consuming bituminous fuel, (P.), B., 805.
- Patent Verwertungs Aktien-Gesellschaft "Alpina," See Cederberg, I. W.
- Patentaktiebolaget Gröndal-Ramén, manufacture from bituminous shales of a product adapted for dry distillation, (P.), B., 359.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen, and Nachod, H., manufacture of a readily-fusible glaze or enamel, (P.), B., 605.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen m.b.H. See also General Electric Co., and Thomas, M.
- Paterson, C. C., red-sensitive photo-electric cells, A., 146.
- Paterson, T. R. See Rule, H. G.
- Paterson, W., purification and softening of water, (P.), B., 174.
- filtering apparatus [cleansing sand filters], (P.), B., 694.
- Pathé Cinéma (Anc. Établ. Pathé Frères), productions of threads, bands, etc. of cellulose esters and ethers, (P.), B., 744.
- Patin, P., preparation of pure water without distillation: electro-osmosis, B., 550.
- Patrick, W. A., Miller, E. B., and Silica Gel Corporation, refining oils and waxes, (P.), B., 664*.

- Patrick, W. A., Miller, E. B., and Silica Gel Corporation, manufacture of sulphuric acid, (P.), B., 927.
- Patrick, W. A., and Silica Gel Corporation, manufacture of gels of tungstic, stannic, aluminium, and titanium oxides, (P.), B., 748*.
- Patrick, W. A. See also Frazer, J. C. W.
- Patrouilleau, L. G. See Soc. Anon. Alumine et Dérivés.
- Patten, A. J., and Winter, O. B., determination of iron and aluminium in the presence of calcium, magnesium, and phosphoric acid, A., 727.
- Patten, J. C., chromium plating [of recessed articles], (P.), B., 791.
- Patten, J. C. See also Metals Protection Corporation.
- Patterson, J., determination of chlorides in body fluids, A., 928.
- Patterson, M. B. See Killian, J. A.
- Patterson, T. S., and McAlpine, I. M., decomposition of bornyl benzene- and naphthalene-sulphonates by heat; products of hydrolysis of bornyl and menthyl benzene- and naphthalene-sulphonates; influence of solvents on the temperature of decomposition of these bornyl and menthyl sulphonates, A., 1253.
- influence of solvents on the rotation of optically active compounds. XXV. Bornyl benzene- and naphthalene-sulphonates in various solvents, A., 1253.
- Paul, J. See Rule, H. G.
- Paul, P. K. See Mitter, P. C.
- Paul, R., and Grandseigne, R. H., production of pure white pectin, (P.), B., 34, 347*.
- Paul, T., Landauer, M., and Krüger, Frederick, compounds of ammonia and carbon dioxide (salts of hartshorn); ammonium bicarbonate as a raiser in baking, B., 209.
- Pauli, W., and Peters, A., colloid chemistry. XXIII. Physico-chemical investigation of thorium oxide sol, A., 834.
- Pauling, H., combustion of ammonia, (P.), B., 402.
- production of ammonia-air mixtures, (P.), B., 641.
- Pauling, L., the shared-electron chemical linking, A., 690.
- influence of relative ionic sizes on the properties of ionic compounds, A., 693.
- crystal structure of topaz, A., 1176.
- Paulus, L., discharging indigo-dyed fabric by means of nitric acid; (a) action of certain catalysts; (b) discharges with flavanthrene and thioindigo red B; (c) discharges with nitroso- β -naphthol, B., 478.
- novel [colour] effects on half-silk materials, B., 812.
- Pauly, H., colour reactions of caoutchouc, A., 294.
- Pauly, H., and Arauner, E., contrast between iodine and bromine in glyoxaline substitution, A., 304.
- Pauthenier, M. See Bruhat, G.
- Pavlak, V. See Tauber, J.
- Pavlas, P. See Stanek, V.
- Pavliček, M. See Plotnikov, J.
- Pavlikovski, S., separation of emulsions using high-tension alternating currents, B., 933.
- Pavlinov, J. J. See Tronov, B. V.
- Pavlov, P. N., influence of volume of solution on degree of swelling of disperse systems, A., 237.
- adsorption and swelling of cellulose in sodium hydroxide solutions, A., 237.
- Pavlovitsch, P. I., effect of hydrogen-ion concentration on tanning, B., 379.
- tanning process, B., 795.
- role of non-tannin, B., 829.
- Paweck, H., and Hirsch, P., preparation of potassium ferricyanide without the use of a diaphragm; effect of superimposed alternating current, A., 1337.
- Paweck, H., and Weiner, R., electroanalysis, A., 143.
- Paxton, B., analysis of lead-base bearing metal, B., 196.
- Payman, J. B., Wignall, H., and British Dyestuffs Corporation, Ltd., manufacture of sulphonamides of 2:3-hydroxynaphthoic arylamides, (P.), B., 328*.
- Payman, J. B. See also British Dyestuffs Corporation, Ltd., and Imperial Chemical Industries, Ltd.
- Payman, W., moving flames, A., 863.
- detonation-wave in gaseous mixtures and the pre-detonation period, A., 1099.
- "normal" propagation of flame in gaseous mixtures, A., 1331.
- Payne, C. E., ore-grinding machine, (P.), B., 197.
- Payte, J. I. See Reed, C. I.
- Peabody, W. A., Hall, I. C., and Lewis, R. C., bacterial growth as a factor in the deposition of calcium from saliva, A., 440.
- Peachey, S. J., and Skipsey, A., vulcanisation of caoutchouc, (P.), B., 133*.
- Peacock, B. L. de G. See Peacock, J. C.
- Peacock, D. H., velocity coefficient for bimolecular reactions in solution, A., 961.
- Peacock, D. H., and Tha, P., use of toluenesulphonic esters in place of halogen esters in malonic ester syntheses, A., 1115.
- Peacock, J. C., and Peacock, B. L. de G., tannin of *Geranium maculatum*, B., 904.
- Peacock, P. R. See Morrison, R. R.
- Peake, A. M. See Distillers Co., Ltd.
- Peale, R., Davies, W. S., and Wallace, W. S., separation of intermixed divided materials of different specific gravities, (P.), B., 352.
- Pearce, J. G., use and interpretation of the transverse test for cast iron, B., 753.
- Pearce, J. N., and Eversole, J. F., potentials and activities of the metals in zinc amalgam cells, A., 309.
- Pearce, J. N., and Eversole, W. G., transference numbers and degree of solvation of the ions of lithium chloride in certain alcohols, A., 22.
- Pearce, J. N., and Goergen, (Miss) S. M., adsorption of hydrogen, ethylene, acetylene, and ethane by stannous oxide, A., 1086.
- Pearce, J. N., and McKinley, L., heats of adsorption of certain organic vapours on charcoal at 25°, A., 481.
- Pearse, H. A., concentration of Britannia ores, B., 525.
- Pearson, T. G., and Robinson, P. L., reaction between monohydrated ferric oxide and hydrogen sulphide at 100°, A., 606.
- Pease, C. S. See Smith, A. W.
- Pease, E. L., manufacture of fertilisers, (P.), B., 459.
- Pease, R. N., thermal dissociation of ethane, propane, *n*- and *iso*-butane, A., 988.
- Pease, R. N., and Chesebro, P. R., equilibrium in the reaction, $\text{CH}_4 + 2\text{H}_2\text{O} \rightleftharpoons \text{CO}_2 + 4\text{H}_2$, A., 707.
- characteristics of homogeneous, exothermic gas reactions, A., 845.
- Pease, R. N., and Durgan, E. S., equilibrium in the reaction, $\text{C}_2\text{H}_6 \rightleftharpoons \text{C}_2\text{H}_4 + \text{H}_2$, A., 1324.
- Pease, R. N., and Stewart, L., catalytic activity and adsorptive power of supported iron, cobalt, nickel, copper, and silver, A., 29.
- Pechkranz, R., electrodes for electrolytic cells, (P.), B., 98.
- Peck, S. S., comparative standard for [sugar] factory efficiency, B., 540.
- Peczalski, T., dispersion of metals in solid salts under the action of an electric current, A., 113.
- Peczalski, T., and Chichocki, J., electrical conductivity of vaporised potassium chloride, A., 1178.
- Peczenik, C. E., and Schamberger, F., production of varnishes, etc., (P.), B., 275.
- Peczenik, O. See Beer, E.
- Pedersen, K. J., effect of shaking on the evolution of gases from supersaturated solutions and its importance for the measurement of the velocity of certain chemical reactions, A., 24.
- Pedersen-Bjergaard, K., volumetric determination of arsenic acid, A., 144.
- Pedersson, C. S., and Breed, R. S., preservative action in catsup of salt, sugar, benzoate, and acid, B., 171.
- Pedroni, A. See Albanese, A.
- Peek, R. L., jun. See Kohman, G. T.
- Peel, J. B., Madgin, W. M., and Briscoe, H. V. R., volume changes attendant on mixing pairs of liquids, A., 356.
- Peel, J. B., and Robinson, P. L., reaction between acetylene and sulphur at temperatures up to 650°, A., 1112.
- Peel, J. B. See also Briscoe, H. V. A., and Madgin, W. M.
- Peeters, C., stabilisation of ferruginous water, (P.), B., 286.
- Peeters, O. See Fries, K.
- Peetz, A., manufacture of chemical wood pulp, (P.), B., 121*.
- Peetz, E. See Kellermann, K.
- Pehrson, A. H., and Dunford & Elliott (Sheffield), Ltd., manufacture of valuable products from combustible materials, (P.), B., 397*.
- Pehrson, A. H. See also Bojner, G.
- Pehrson, A. P. See Bojner, G.
- Peirce, F. T., influence of humidity on the elastic properties of starch film, B., 652.
- Peirce, W. McG., Anderson, E. A., and New Jersey Zinc Co., zinc-base alloy, (P.), B., 304.
- Feiser, E. See Steudel, Hermann.

- Pelkman, J. H. N., travelling [bakers'] ovens of the flat-sole type, (P.), B., 106.
- Pellens, L. See Remy, H.
- Pellurin-Ges.m.b.H., manufacture of pure hexamethylenetetramine hydrochloride, (P.), B., 624.
- Pelly, R. G., hydrogenation of fatty acids and of mixtures of fatty acids with neutral oils, B., 200.
- Pemberton, R. See Cajori, F. A.
- Pembrey, M. S. See Conybeare, E. T.
- Penau, H., and Plé, J., pepsin. I, A., 922, 1158*.
- Pendergast, W. L. See Heindl, R. A.
- Penfold, A. H., preservation of eggs, (P.), B., 799.
- Penfold, A. R., essential oil of *Eucalyptus Bakeri* (Maiden), B., 35.
essential oils of two species of *Baeckea*, B., 502.
essential oil from timber of rosewood (*Dysoxylon Fraserianum*), B., 502.
- Penfold, A. R., and Morrison, F. R., essential oils of *Eucalyptus micrantha* (D.C.) and *E. haemastoma* (Smith). I, B., 502.
- Peňkava, J. See Stoklasa, J.
- Pennell, R. H. L., and Brackett, F. W., purification of liquid trades waste, (P.), B., 694.
- Penning, F. M., influence of very small quantities of substances on the running-voltage in noble gas [discharges], A., 214.
liberation of electrons from a metal surface by positive ions, A., 681.
ionisation by metastable atoms, A., 682.
- Pennsylvania Gypsum Co. See Thomson, G. M.
- Penny, J. P., and National Aniline & Chemical Co., Inc., production of oil-soluble azo-colouring matters, (P.), B., 255.
- Pennycuik, S. W., colloidal platinum. IV. Existence of hexahydroxyplatonic acid in colloidal platinum solutions, A., 1090.
- Pennycuik, S. W., and Best, R. J., colloidal platinum. III. Natural acidity and coagulation by acids, A., 476.
- Pennycuik, S. W., and Scott, A. E., preparation of colloidal lead, A., 667.
- Pensa, A. See Bretnütz, A.
- Pense, W. See Fries, K.
- Péntchev, N. P., rare gases from some Bulgarian thermal springs, A., 267.
rare gases from thermal springs and the earthquakes of April 14 and 18, 1928, in Bulgaria, A., 987.
- Pentelow, F. T. K. See Butcher, R. W.
- Peper, J. P. See Straub, J.
- Pepper, D., manufacture of electrodes for batteries, (P.), B., 129.
- Perciabosco, F., water of crystallisation of calcium citrate, A., 1356.
rapid determination of phosphate in technical citric and tartaric acid liquors, B., 891.
influence of malic acid in lemon juice on Warington's method of analysis, B., 942.
- Percival, G. H. See Stewart, C. P.
- Percy, E. N. See Yard, W. S.
- Perdrizet, P., and Meyer, C., removal of gases from water, (P.), B., 550.
- Peresepkin, E. J., relative intensities of the H_{α} and D_{α} (He) lines in protuberances of the sun's chromosphere, A., 930.
- Pereyra, L., essential oil of *Lippia hastulata* (Grisebach), A., 560.
- Perfection Co., Inc., rendering of animal fatty tissues, (P.), B., 647.
- Perietzeanu, D. I., differentiation of tartaric, citric, and oxalic acids amongst themselves, A., 1117.
direct production of steel by means of methane, B., 335.
- Perkin, A. G., and Storey, R. C., migration of the acyl group in partly acylated phenolic compounds. I, A., 293.
- Perkin, A. G. See also Chapman, E.
- Perkin, W. H., jun., Bunbury, H. M., and British Dyestuffs Corporation, Ltd., manufacture of monobenzoyldiaminoanthraquinone compounds, (P.), B., 255*.
- Perkin, W. H., jun., and Plant, S. G. P., stereoisomerism in polycyclic systems. IV. Two stereoisomerides of 2:3:4:5:12:13-hexahydroquinindene, A., 527.
stereoisomerism in polycyclic systems. V, A., 1258.
- Perkin, W. H., jun., Rây, J. N., and Robinson, R., synthesis of brazilin and hamatoxylon and their derivatives. III, A., 895.
- Perkin, W. H., jun. See also Gurney, J., and Lennon, J. J.
- Perkins, B., jun. See Watson, W. W.
- Perkins, M. E. See Buell, M. V.
- Perkins, P. D. See Adkins, H.
- Perkins, P. P. See Youtz, M. A.
- Perks, T. E., separation, by distillation, of miscible liquids, (P.), B., 773.
- Perl, A. See Kohorn, O. von.
- Perl, J., and Cory, M. M., saccharification of cellulose-bearing material, (P.), B., 668.
- Perl, J. See also Smith, A. D.
- Perley, A. See Morgulis, S.
- Perlit, H., structure of Tl- α and Tl- β , A., 1080.
- Perlitz, W. A., and Barron, E. S. G., lactic acid and carbohydrate in sea-urchin eggs under aerobic and anaerobic conditions, A., 1278.
- Perlitz, W. A., and Delrue, G., use of the starch-iodine endpoint in Tunncliffe's method for the determination of glutathione in tissues, A., 84.
- Perman, E. P., vapour pressure and heat of dilution. V. Activity, A., 368, 712*.
- Perman, E. P., and Urry, W. D., dissociation of sodium sulphate decahydrate, A., 366.
elastic constants of glass, B., 560.
- Permutit Akt.-Ges., production of chromyl chloride, (P.), B., 231.
- Permutit Co. See Spencer, A. C.
- Pernot, (Mlle.) M., system mercuric iodide-potassium iodide-water, A., 20.
- Péron, (Mme.) See Clarens, J.
- Perov, S. S., crystallisation of casein, A., 659.
- Perquin, J. N. J. See Waterman, H. I.
- Perrakis, N., magneto-chemistry of vanadium, A., 103.
- Perrakis, N. See also Nicholson, S. B.
- Perreau, (Mlle.) G. See Boutaric, A.
- Perrier, D. See Compagnie Industrielle des Moteurs à Explosion (C.I.M.E.)
- Perrin, F., and Delorme, R., duration of fluorescence of solid uranyl salts and of their solutions, A., 346.
- Perrin, J., and Choucroon, (Mlle.), velocity of photochemical reactions, A., 1338.
- Perrot, E., Australian sandal woods and their essences, B., 210.
- Perrot, E., and Bourcet, P., determination of yield of "digitaline cristallisée" [obtainable from *Digitalis* leaves], B., 426.
- Perrott, G. St. J., Tolch, N. A., and Crawshaw, J. E., relation between oxygen balance and propulsive strength of gelatin dynamites, B., 549.
- Perrott, G. St. J. See also Jones, G. W., and Loomis, A. G.
- Perry, J. H., vapour pressures of methylene chloride, A., 10.
- Perry, R. P., and Barrett Co., building material, (P.), B., 335.
- Perry, W. E. See McCallum, S. P.
- Perschke, W., origin of penetrating radiation, A., 1302.
- Pershing, R. S., cracking of oil, (P.), B., 326.
- Persico, E., distribution of molecular velocities, excited states, and transition probabilities in degenerated gases, A., 456.
- Persson, E., X-ray analysis of Heusler's alloy, A., 1077.
- Persson, E., and Westgren, A., X-ray analysis of thallium-antimony alloys, A., 1181.
- Pertusi, C., action of basic lead acetate in presence of alkali on dextrans and gums, and its use in the analysis of certain sugar products, B., 939.
- Pertzov, V., effect of rennin on caseinogen. II. Properties of casein, A., 328.
lipase of the larva of *Galleria mellonella*, A., 1054.
behaviour of caseinogen in partial solution in calcium hydroxide, A., 1323.
- Perucca, E., electrification in gases due to friction with solid surfaces, A., 467.
- Perumal, T. S. S. See Ayyar, C. V. R.
- Peschke, W. See Schmalfuss, H.
- Pester, C. F., and Standard Oil Development Co., treatment of emulsions [of hydrocarbon oils and water], (P.), B., 439*.
- Peter, A. M. See Buckner, G. B., and Pierce, J. S.
- Peter, J. See Schönberg, A.
- Peter, O. See Thiel, A.
- Peter, P. N. See Bell, R. W.
- Peters, A. See Pauli, W.
- Peters, A. T. See Challenger, F.
- Peters, E. K., mercury condenser, (P.), B., 677.
- Peters, F., behaviour of creatinin in the animal body, A., 917.
- Peters, F. See also Brünig, H., and Wolman, K. H.
- Peters, F. N., jun., and Stanger, O. C., small high-pressure autoclave, B., 143.
- Peters, G., dependence of refractive index on temperature and density, A., 936.

- Peters, K., physical methods in chemical laboratories. II. Vacuum technique, A., 728.
- Peters, K., and Deutschländer, E., bromometric determination of chlorates, A., 383.
- Peters, K. See also Paneth, F.
- Peters, R. A., Kinnerley, H. W., Orr-Ewing, J., and Reader, V., relation of vitamin-B₁ to the growth-promoting factor for a *Streptothrix*, A., 556.
- Peters, R. A. See also Kinnerley, H. W.
- Peters, W. A., jun., and Du Pont de Nemours & Co., E. I., rectifying apparatus, (P.), B., 627.
- Petersen, H., manufacture of sulphuric acid, (P.), B., 122, 332, 709.
- effecting an intimate contact between gases and liquid which have to react on each other, (P.), B., 774.
- Petersen, O., filter for fine filtration of liquids, (P.), B., 74, 697.
- Petersen, P. W., refrigerating and preserving comestibles, (P.), B., 767.
- Petersen, W. See Lottermoser, A.
- Petersen, W. E. See Thurston, L. M.
- Peterson, A., concentration of caoutchouc and the like latices, (P.), B., 533*.
- Peterson, A. A. See French, H. J.
- Peterson, B. H., and Bartow, E., effect of salts on rate of coagulation and optimum precipitation of alum floc [in water purification], B., 174.
- Peterson, C. See Bray, M. W.
- Peterson, C. E. See Schafer, E. R.
- Peterson, E. E., Levine, M., and Buchanan, J. H., preparation of syrups. I. and II., B., 345.
- Peterson, E. E. See also Levine, M.
- Peterson, F. C., and Spencer, C. C., production of cellobiose from cellobiose octa-acetate, A., 48.
- Peterson, J. B., standardisation of ephedrine and its salts, B., 426.
- Peterson, J. M., and Rodebush, W. H., cryoscopic study of benzene solutions, A., 707.
- Peterson, J. M. See also Gilman, H.
- Peterson, L. C., rubber articles, (P.), B., 494.
- Peterson, W. C., and Packard Motor Car Co., manufacture of protective covering for aluminium bodies, (P.), B., 575.
- Peterson, W. H., and Elvehjem, C. A., iron content of plant and animal foods, A., 919.
- Peterson, W. H., and Lindow, C. W., variations in the manganese content of certain vegetables, B., 911.
- Peterson, W. H., Parmele, H. B., and Fred, E. B., factors influencing the composition of cabbage and their relation to the quality of sauerkraut, B., 63.
- Peterson, W. H., Wilson, P. W., McCoy, E., and Fred, E. B., occurrence of calcium citrate crystals in cultures of butyric acid-forming bacteria; water of crystallisation of calcium citrate, A., 89.
- Peterson, W. H. See also Anderson, J. A., Munger, S., and Parmele, H. B.
- Peterson, W. R. See Adams, R.
- Petertil, E. See Gebauer-Füllnegg, E., and Pollak, J.
- Petit-Devaucelle, L., recovery of by-products from sulphite-cellulose waste-liquor, (P.), B., 188.
- Petree, C. G., manufacture of sugar, (P.), B., 461.
- Petrenko, G. I., transition point of zinc at 175°, A., 10.
- Petrenko-Kritschenko, P., law of periodicity. II., A., 461*.
- Petrenko-Kritschenko, P. [with Ravikovitch, A., Opatzki, V., Putjata, E., and Diakova, M.], law of periodicity. III., A., 614.
- Petrie, A. K. H., effect of temperature on the unequal intake of the ions of salts by plants, A., 92.
- Petrie, A. K. H. See also Briggs, G. E.
- Petrie, E. J., and Hannan, G. R., [diatomaceous absorbing medium for] battery, (P.), B., 612.
- Petrie, F. B., and Petrie & McNaught, Ltd., grading and separation of mixed materials, (P.), B., 248.
- Petrie & McNaught, Ltd., and Craven, J. T., grading and separation of mixed materials, (P.), B., 552.
- Petrie & McNaught, Ltd. See also Petrie, F. B.
- Petrikaln, A., cause of the luminescence of phosphorus, A., 1307.
- Petroleum Laboratories, Inc. See Van de Water, F. C.
- Petroleum Process Co., converting or cracking heavy oils into lighter oils, (P.), B., 919.
- Petroleum Products Refining Co., bleaching and purification of sugar juice, (P.), B., 832.
- Petroleum Sand Products Corporation. See Schwarz, A.
- Petrov, A. D., catalytic condensation of methyl ethyl ketone, A., 156, 739.
- colorimetric determination of lead, A., 726.
- Petrov, A. D. See also Ipatiev, V. N.
- Petrov, G. S., treatment of drying and semi-drying fats and oils, (P.), B., 130.
- production of condensation products of phenols with aldehydes, (P.), B., 164.
- preparation of fluid condensation products from phenols and formaldehyde, (P.), B., 165.
- separation and purification of sulphonic acids of high mol. wt., (P.), B., 361.
- deodorisation of liquid naphtha distillates and mineral oils, (P.), B., 472.
- production of preparations capable of being emulsified and forming soaps, (P.), B., 492.
- purification of mineral and naphtha oils, (P.), B., 595.
- treatment of articles and masses obtained from phenol-aldehyde condensation products, (P.), B., 648.
- Petrov, G. S., Danilovich, A. J., and Rabinovitch, A. J., oxidation of "vaseline" oil, B., 592.
- Petrov, G. S., and Shestakov, P., production of washing agents, (P.), B., 340.
- preparation of phenol-formaldehyde condensation products, (P.), B., 937.
- Petrov, P., facilitating the briquetting of coal, (P.), B., 115.
- Petrunkin, A., and Petrunkin, M., combination of gelatin with organic bases, A., 190, 435*.
- Petrunkin, M. See Petrunkin, A.
- Pettersson, A., behaviour of "β-lysin" with lipin solvents, A., 1159.
- Pettersson, H., visual observation of H-particles, A., 810.
- helium nucleus as the foundation of other atom nuclei, A., 811.
- Pettersson, H., and Kirsch, G., visibility of β-scintillations, A., 810.
- Pettibone, E. E. See Baker, E. M.
- Pettit, E., transmission properties of some filters, A., 40.
- Petzold, E. See Heinrich, F.
- Peufaillet, L., and Austerweil, G., manufacture of camphene and derivatives, (P.), B., 874.
- Pevere, E. F., Hendrie, G. A., and Phosphorus Hydrogen Co., purification of phosphoric acid, (P.), B., 123.
- Pevzner, G. A., extraction of the active glucosides of *Adonis vernalis*, A., 276.
- Pew, A. E., jun., and Sun Oil Co., mineral oil still, (P.), B., 632.
- production of high-viscosity lubricating oil and high-grade asphalt from petroleum, (P.), B., 807.
- Pew, A. E., jun., Thomas, H., and Sun Oil Co., separation of gasoline from crude [mineral] oil; distillation of mineral oil, (P.), B., 396.
- distillation of mineral oil, (P.), B., 472.
- Pewsner, S., adsorption phenomena in solutions. X. Connexion between adsorption and η_{sp} of solutions, A., 581.
- Pexton, S. See Eaton, F. J., and Hollings, H.
- Peyer, J. See Billeter, O.
- Pezold, E. von, distillation of oil shales from the liquid phase, B., 661.
- Pfälzische Chamotte- & Thon-Werke Schiffer & Kircher A.-G. See Strack, O.
- Pfannhauser, W. A. F., production of lamellar metallic deposits, (P.), B., 128.
- Pfannenschmidt, C. See Merz, A.
- Pfannmüller, W. See I. G. Farbenind. A.-G.
- Pfau, A. S., reductive fission of dieugenyl ethylene ether, A., 1239.
- Pfau, A. S. [with Ofner, A.], constituents of lichens. II. Constitution of barbatic acid, A., 1241.
- Pfaudler Co., rotary agitators, (P.), B., 802.
- Pfeffer, E., and Gmelin, "colloresin D" and its application in [textile] printing, B., 890.
- Pfeifer, A. See Zettlitz, V.
- Pfeifer, C. E. See Carswell, T. S.
- Pfeiffer, and Schwandner G.m.b.H., production of starch soluble in cold water, (P.), B., 423.
- Pfeiffer, G., rapid determination of organic iodine, A., 928.
- Pfeiffer, K. See Edeleanu, L.
- Pfeiffer, M. See Ruzicka, L.
- Pfeiffer, P. [with Behr, H., Breyer, B., Clarenz, O., and Kübler, H.], betaines. III., A., 1132.

- Pfeiffer, P., Angern, O., Haack, E., and Willems, J., brazilin and hæmatoxylin. VII. Syntheses of trimethylbrazilone and tetramethylhæmatoxyline, A., 647.
brazilin and hæmatoxylin. VIII. Reduction of trimethylbrazilone and tetramethylhæmatoxyline, A., 1256.
- Pfeiffer, P., and Backes, F., triple spiran, A., 413.
- Pfeiffer, P., and Haack, E., behaviour of methoxy-compounds towards aluminium bromide, A., 420.
- Pfeiffer, P., Haack, E., and Willems, J., brazilin and hæmatoxylin. VI. Synthesis of tetramethylhydrohæmatoxylin, A., 426.
- Pfeiffer, P., Kalckbrenner, E., Kunze, W., and Levin, K., some hydrochalkones and hydrochalkols, A., 761.
- Pfeiffer, P., Kollbach, K., and Haack, E., halochromic compounds of polyketones, A., 421.
- Pfeiffer, P., and Richarz, J., constitution of the internally complex salts of the mono- and di-oximes of α -diketones, A., 291.
- Pfeiffer, P., and Segall, B., influence of anti-auxochromic groups on the halochromy of ketones, A., 419.
- Pfeiffer, P., and Seydel, R., molecular compounds in the veronal series, A., 899.
constitution of "compral," A., 1260.
constitution of hypnal and trigemin, A., 1261.
pharmaceutical combinations and the formation of molecular compounds, A., 1328.
- Pfeiffer, P., and Wizinger, R., theory of halogen substitution, A., 633.
- Pfeil, L. B., change in tensile strength due to ageing of cold-drawn iron and steel, B., 752.
- Pfeiler, R. See Löw, A.
- Pfeilsticker, K., photo-oxidation with anthraquinone, A., 1289.
theory of photo-synthesis, A., 1289.
- Pfennig-Sehumacherwerke G.m.b.H., utilisation of scrap from products made from blood, casein, and glue hardened with formaldehyde, (P.), B., 203.
- Pfizer & Co., C. See Pasternaek, R.
- Pfeger, J., and Albert, A., manufacture of derivatives of organic arsenic compounds, (P.), B., 211*.
- Pflug, H. See Wolman, K. H.
- Pfund, A. H., chemiluminescence; experimental methods, A., 814.
metallic reflexion from rock salt and sylvite in the far ultra-violet, A., 934.
- Pfundt, O., volumetric determination of potassium, A., 859.
- Pfundt, O. See also Jander, G.
- "Pharmagans" Pharmaceutisches Inst. L. W. Gans Akt-Ges., ampoules for the preparation of solutions, more particularly for medical and like purposes, (P.), B., 37, 141.
- Phelan, A. A., cracking still [for hydrocarbons], (P.), B., 44.
- Phelps, A. C. See Mead, B.
- Phelps, C. A., Anderson, A. J., and Barmore, M. G., manufacture of oil-gas, (P.), B., 470.
- Phelps, F. P., and Hudson, C. S., relations between rotatory power and structure in the sugar group. XVIII. α -Methyl-d-lyxosido triacetate, A., 991.
- Phelps, R. H. See Boruff, C. S.
- Phelps, S. M., photographic reproduction of objects in their natural colours or in monochrome, (P.), B., 770.
- Philadelphia Quartz Co. See Dedrick, C. H.
- Philadelphia Storage Battery Co. See Grimditch, W. H.
- Philibert, A., and Risler, J., bactericidal action of dyes, A., 925.
- Philibert, A. See also Risler, J.
- Philip, W. G. See Bennett, G. M.
- Philipp, K. See Donat, K.
- Philipp, O., porosity and permeability as characteristics of porous bodies, B., 319.
- Philipps, H. See Mayer, F.
- Phillips, C. L. See Bourgognion, J. W. M.
- Phillips, A. J., twinning in copper and brass, A., 694.
- Phillips, A. J. See also Mathewson, C. H., and Price, W. B.
- Phillips, H. See Edwards, O. K., and Gaythwaite, W. R.
- Phillips, H. W. L. See Gwyer, A. G. C.
- Phillips, J. W. C. See Mumford, S. A.
- Phillips, M., lignin. II. Fractional extraction of lignin from corn [maize] cobs, A., 992.
manufacture of cyclohexylresorcinol, (P.), B., 173.
- Phillips, M., Clark, W. M., and Cohen, B., oxidation-reduction. XI. Potentiometric and spectrophotometric studies of Bind-schedler's-green and toluylene-blue, A., 129.
- Phillips, M., and Hellbach, R., electrically-heated furnace for organic combustions, A., 1149.
- Phillips, M. A., formation of 2-methylbenziminazoles, A., 305.
formation of 2-substituted benziminazoles, A., 1381.
- Phillips, M. A. See also Newbery, G.
- Phillips, R., and Williams, John F., nitroaminoguanidine, A., 1229.
- Phillips, R. J., stability of solutions of potassium metabisulphite, A., 497.
- Phillips, R. J. See also Knapp, A. W.
- Phillips, T. G. See Appleman, C. O.
- Phillips, W. M. See Gen. Motors Corp.
- Philpott, D. See Leuchs, H.
- Phipps, H. E. See McCullough, J. C.
- Phipps, T. E., and Leslie, R. T., transport numbers of ions in solid sodium chloride at high temperatures, A., 1192.
- Phipps, T. E. See also Taylor, J. B.
- Phosphate Mining Co. See Harned, G. T.
- Phosphorus Hydrogen Co. See Larsson, M., Liljenroth, F. G., and Peveré, E. F.
- Phragmén, G. See Westgren, A.
- Piater, J., amphoteric nature of cadmium hydroxide, A., 1189.
- Picard, H. F. K. See Sulman, H. L.
- Picard, L. See Mennecke, R. F.
- Picard, P. See Bridel, M.
- Piccard, J., resistance wire for use in the laboratory, A., 389.
- Piccardi, G., ionisation potential and atomic number, A., 212.
relations between the first- and second-order ionisation potentials of homologous elements, A., 212.
- Piccardi, G. See also Rolla, L.
- Picher, H. See Lockemann, G.
- Pichler, H. See Fischer, F.
- Pickering, E., causes of deterioration of strophanthus seed during storage, B., 284.
- Pickering, E. See also Coleman, G. H.
- Pickering, E. C. See Wilson, F. J.
- Pickering, J., treatment of acid sludge or acid resin obtained from the refining of mineral oils, (P.), B., 6.
- Pickering, S. F. See Smith, F. A.
- Pickett, E. R. See Howe, D. W.
- Pickstone, C., manufacture of cement mortar, artificial stone, concrete, etc., (P.), B., 15.
- Picon, M., bismuth salicylates and citrates, A., 288.
oil-soluble bismuth salts; hexahydrobenzoate and campho-carbonate, A., 1240.
- Picon, M. See also Fabre, R.
- Pictet, A., and Vogel, H., synthesis of lactose, A., 276.
synthesis of sucrose, A., 510, 741.
sucrose B, A., 1223.
sucroses C and D, A., 1223.
- Pictet, A. See also Vogel, H.
- Pidgeon, L. M. See Hill, H. S.
- Pieńkowski, S., fluorescence of electrically [and optically] excited mercury vapour, A., 813.
- Pieper, E. See Elöd, E.
- Pieraerts, J., *Malvaceæ*. III. *Hibiscus manihot*, L., B., 678.
- Pierce, H. F., cellulose nitrate membranes of graded permeability, A., 233.
- Pierce, H. F., and Scott, E. L., variations in the reducing power (sugar) of normal human blood, A., 662.
- Pierce, I. H. See Plant, O. H.
- Pierce, J. K., and Pierce, W. S., separation of oils, (P.), B., 326.
- Pierce, J. S., alkylamino-ethanols and -propanols, A., 277.
- Pierce, J. S., Setzer, W. C., and Peter, A. M., titrometric determination of calcium and magnesium carbonates in limestone, B., 402.
- Pierce, W. C., and Noyes, W. A., jun., reaction between nitrogen dioxide and liquid mercury, A., 972.
- Pierce, W. M., electrolytic capacitance of platinum-sulphuric acid cells, A., 596.
- Pierce, W. S. See Pierce, J. K.
- Pieri, M. See Saccardi, P.
- Pieron, J., means for preventing boiler-scale, (P.), B., 944.
- Pierre, W. H., and Fudge, J. F., adjustment of the reaction of indicator solutions and its importance in determining the hydrogen-ion concentration of slightly buffered solutions, A., 723.
- Pierre, W. H. See also Parker, F. W.
- Pierros, S. See Goldschmidt, S.
- Piersol, R. J., photo-electric conduction in selenium, A., 8.
electronic discharge from cold wires in intense electric fields, A., 452.
- Pierson, E., vitamin content of canned spinach, B., 767.

- Pietenpol, C. J., direction of ejection of photo-electrons by polarised X-rays, A., 1298.
- Pietenpol, W. B., and Miley, H. A., liquid wires and their surface films, A., 9.
- Pietra, P., detection of reducing sugars in urine by Castellani's mycological method, A., 440.
- Pietsch, K. See Schmid, L.
- Piettre, M., properties of serum-proteins, A., 912.
- Piettre, M., and Chrétien, A., influence of electrolytes on the phenomena of agglutination, A., 205.
- hæmolysis, A., 317.
- acetone method applied to study of distribution of antibodies on agglutinating sera during immunisation, A., 664.
- Pietzsch, A. See Adolph, G.
- Piggot, C. S., lead isotopes and the problem of geologic time, A., 809.
- radium content of Stone Mountain granite, A., 810.
- diameter of the CH₂ chain in aliphatic acids, A., 822.
- Piggott, H. A. See British Dyestuffs Corp., Ltd., and Imperial Chemical Industries, Ltd.
- Pignot, A. See Aubert, M., and Chappius, J.
- Pigulevski, G., and Charik, M., decomposition of olive oil by micro-organisms; conversion of oleic into ketostearic acid, A., 1402.
- Pike, E. F., Smyth, H. F., and Commercial Solvents Corporation, production of acetone and butyl alcohol by fermentation, (P.), B., 171.
- Pike, R. D., multiple-hearth calcining furnace, (P.), B., 676.
- production of wrought iron direct from electrolytic iron, (P.), B., 756.
- Pike, R. D., and West, G. H., heat balance of a glass tank furnace, B., 858.
- Pike, S. R., nebular spectrum in new stars, A., 210.
- Pilaar, W. M. M., determination of carbon monoxide in blood, A., 1149.
- Pilat, S., adsorption processes [for gases] and apparatus, (P.), B., 773.
- Pilkov, A. N., ionium from Fergan ores, A., 971.
- Pillay, P. P., Rao, B. S., and Simonsen, J. L., constituents of Indian essential oils. XXII. Essential oil from flower heads of *Cymbopogon coloratus*, Stapf., B., 210.
- Pillay, P. P., and Simonsen, J. L., constituents of Indian turpentine from *Pinus longifolia*, Roxb. IV., B., 274.
- Pilling, N. B., Sehoener, J. G., and International Nickel Co., welding electrodes [for nickel], (P.), B., 716*.
- welding rod, (P.), B., 758.
- Pilling, N. B., and Westinghouse Electric & Manufacturing Co., treatment of alloys, (P.), B., 527.
- Pillsbury, M. E. See Tammann, G.
- Piña de Rubies, S., new lines in the arc spectrum of manganese and rectification of these between 2500 and 2300 Å., A., 211.
- Pinchassik, M. L. See Goldberg, J. M.
- Pinck, L. A. See Hetherington, H. C.
- Pincussen, L., biological effect of light, A., 200.
- Pincussen, L., and Hayashi, S., enzymes and light. XII. Lipase. I., A., 795.
- Pincussen, L., and Jacoby, D., changes in metabolism during irradiation. III. Changes of carbohydrate metabolism, A., 918.
- Pincussen, L., and Kumanomidoh, S., enzymes and light. X. Diastase. V., A., 795.
- Pincussen, L., and Uehara, K., enzymes and light. XI. Pepsin. I., A., 795.
- Pine Institute of America, Inc. See Kesler, C. C.
- Pinet, A. F. P., and Debout, A., distillation of [finely-divided] coal, (P.), B., 883.
- Pingault, P. See Charpy, G.
- Pinkus, A., and De Brouckère, (Mlle.) L., adsorption of electrolytes by crystalline surfaces, A., 831.
- Pinkus, A., and Dernies, J., separation and determination of bismuth by means of cupferron, A., 1109.
- Pinner, M. See Kelly, R. G.
- Pinsl, H., peculiar graphite crystallisation in pig iron and cast iron, B., 406.
- Pinten, P. See Bredt, J.
- Pinterovic, Z. See Mikšić, J.
- Pintsch & Otto Ges.m.b.H., carbonisation plant, (P.), B., 777.
- Pintus, F. See Hein, F.
- Pioda, L. E. W., controlling the movement of masses of solids of various sizes, (P.), B., 320.
- Piombo, A. See Mezzadrolì, G.
- Piotrovski, A. See Turski, J. S.
- Piovano, V., preparation of guanidine derivatives starting from S-methylisothiocarbamide sulphate, A., 744.
- Piper, G. S. See Samuel, G.
- Pipes, P. P., and Ohio Brass Co., [copper] welding rod, (P.), B., 758.
- Pipkin, M. See British Thomson-Houston Co., Ltd.
- Pirak, H., determination of anthracene and anthraquinone, B., 254.
- Pirani, M., and Schönborn, H., electronic collisions in a gas-filled space, A., 453.
- Piron, E., distillation of solid bituminous materials, (P.), B., 325.
- Piron, E., and Piron Coal Distillation Systems, Inc., absorption of fluids from gases; removal of tar from gases, (P.), B., 357.
- Piron Coal Distillation Systems, Inc. See Piron, E.
- Pirrone, F. See Romeo, G.
- Pirsch, J., allenetetracarboxylic acid. II., A., 273.
- Pisani, F., identification of blood in the insoluble state, A., 661.
- Pitt, A. See Burton, E. F.
- Pitt, W. J., volumetric determination of carbon and carbon dioxide in rock products by electrical incandescence, A., 858.
- analysis of Portland cement for factory purposes, B., 859.
- Pittarelli, E., colour reaction of creatine and of carbamide, A., 1121.
- Pittman, E. E. See Lewis, I. M.
- Pittsburgh Plate Glass Co., and Heichert, H. S., leer construction, (P.), B., 125.
- Pittsburgh Plate Glass Co. See also Means, D. R.
- Pittsburgh Research Corporation. See Moore, W. E.
- Pitzer, L. E., [determination of] phosphorus and silicon in ferro-phosphorus, B., 195.
- Pitzler, H. See Benrath, A.
- Piver, W. C., manufacture of calcium arsenate, (P.), B., 447.
- Pivovarsky, E., cupola furnaces, (P.), B., 756.
- Pizarroso, A. See Fernandez, O.
- Plagge, H. H., Maney, A. J., and Gerhardt, F., physical and chemical changes of Grimes apples during ripening and storage, B., 346.
- Plagwitz, P., and Taeschner Chemisch-Pharmazeutische Fabrik, E., reduction of photographic silver image layers, (P.), B., 173*.
- Plahl, W., prolonged storage of bacteriological nutrient media, A., 675.
- rapid test of pepper powder for excessive chalk content, B., 386.
- chloroform test in evaluation of the quality of starch, B., 685.
- mastication test for sand in flour, B., 688.
- Planck, M., potential difference between two solutions, A., 481.
- Plant, H. J. See Bennion, F.
- Plant, J. H. G. See Haworth, W. H.
- Plant, O. H., and Pierce, I. H., chronic morphine poisoning in dogs. I. General symptoms and behaviour during addiction and withdrawal. II. Changes in blood cells and hæmoglobin during addiction and withdrawal. III. Blood-sugar during tolerance and withdrawal, A., 1053.
- Plant, S. G. P., and Rippon, (Miss) D. M. L., condensation of hexahydrocarbazole and of tetrahydropentindole with cyclopentanone cyanohydrin, A., 1023.
- Plant, S. G. P., and Rosser, R. J., derivatives of tetrahydrocarbazole. VII. Reactions of 3-methyltetrahydrocarbazole, 6-chlorotetrahydrocarbazole, and their acyl derivatives, A., 1259.
- Plant, S. G. P. See also Betts, R. L., Briscoe, E. F., Gurney, J., Oakeshott, S. H., and Perkin, W. H., jun.
- Planta, C. von. See Society of Chemical Industry in Basle.
- Plantinga, P., and Cleveland Trust Co., Exors., carbonising and gas-making apparatus, (P.), B., 325.
- Plassmann, J., apparatus for the low-temperature distillation or coking of fuels, (P.), B., 395.
- retort for carbonising bituminous fuels, (P.), B., 514*.
- low-temperature distillation furnace, (P.), B., 631.
- Plastic, Inc., and Kennedy, A. L., process of making paper, (P.), B., 668.
- Platen, B. C. von. See Electrolux, Ltd.
- Platen-Munters Refrigerating System Aktiebolag. See Electrolux, Ltd.
- Piatt, B. S. See Dawson, E. R.
- Plattner, F. See Galehr, O.
- Plauson, H., Schröder, P., and Bates, L. W., liquid fuel, (P.), B., 45*.
- Player, E., and Pare Engineering Co., Ltd., mixing of gases and liquids, (P.), B., 352.

- Plaza, G. R. See Orzel, J.
 Plázek, F., and Sucharda, E., 2-acetamidopyridine, A., 1260.
 diphenylpyridylmethane dyes, A., 1260.
 Plé, J. See Penau, H.
 Pleass, W. B. See Lloyd, D. J.
 Plepp, G. See Wilke-Dörfurt, E.
 Pleuger, F. See Schenck, R.
 Plews, W. J., and Plews & Hutchinson Corporation, manufacture of battery plates, (P.), B., 491*.
 Plews, W. J. See also Silica Gel Corp.
 Plews & Hutchinson Corporation. See Plews, W. J.
 Plichta, J. See Kubina, H.
 Plisov, A. K., reaction between α -oxides and α -monochlorohydrins and hydrazine, A., 1120.
 Pljusnin, V. G. See Postovski, I. J.
 Ploetz, G. See Arndt, K.
 Ploski, W., constant alkaloidal content of *Datura stramonium*, L. var. *inermis*, A., 927.
 Plotnikov, J. [with Deutsch, G., Kunst, B., Pavliček, M., Vranjican, D., Barbetti, D., and Muic, N.], photo-oxidation of organic compounds by dichromates, A., 1102.
 Plotnikov, J., and Weber, K., partition of light between two absorbing media, A., 1085.
 Plotnikov, V. A., and Bendetzki, M. A., electrochemistry of solutions of aluminium bromide in nitrobenzene, A., 247*.
 Plücker, W., Steinruck, A., and Starck, F., determination of cacao shell, B., 314, 942.
 Plumbridge, D. V. See Salt Union, Ltd.
 Plummer, W. B., and Beaver, D. J., abrasion tests of rubber stocks containing various types of carbon black, B., 794.
 Plummer, W. G. See McLennan, J. C.
 Plyler, E. K., determination of isotopes by spectral lines, A., 684.
 infra-red reflexion spectra of some carbonates, A., 1307.
 Pneumatic Conveyance & Extraction, Ltd., and Smith, W. A., rotary separators, (P.), B., 3.
 pneumatic suction apparatus for the removal of dust and like finely-divided material, (P.), B., 144.
 Poberejsky, J., protective coverings for [aircraft petrol] tanks, pipes, etc., (P.), B., 473.
 Pocock, A. L., manufacture of white alloys, (P.), B., 932.
 Podaschewsky, M. N., influence of deformation on the interior photo-electric effect for rock-salt, A., 1076.
 Podjaski, G. von. See Jellinek, K.
 Podkopaev, N. I. See Grigoriev, A. T., and Shemtshushni, S. F.
 Podolsky, B., dispersion by hydrogen-like atoms in undulatory mechanics, A., 577.
 King's classical theory of atomic structure, A., 1304.
 Podszus, E., and Hartstoff-Metall A.-G. (Hametag), whirling mill for the production of finely-divided powder, (P.), B., 878.
 Podszus, E. See also Hartstoff-Metall A.-G. (Hametag).
 Poethke, W. See Manicke, P.
 Poetker, A. H., infra-red radiation of nitrogen, A., 98.
 Pöttken, O. See Haas, M.
 Pofowa, T. See Przeborowski, J.
 Pogány, B., and Schmid, R., influence of magnetic fields on the bands of the third positive group in nitrogen, A., 930.
 Poggi, R. See Angeli, A.
 Pogue, C. N., and Andrews, A. J., means for forming combustible mixtures for use in internal-combustion engines, (P.), B., 779.
 Pohl, E., behaviour of basic open-hearth steel sheets during rolling, B., 486.
 Pohl, E. See also Gutehoffnungshütte Oberhausen A.-G.
 Pohl, R., absorption spectrum of antirachitic cholesterol, A., 219.
 absorption spectrum of antirachitic provitamin and vitamin, A., 219.
 optical detection of a vitamin, A., 333.
 Pohl, R. W., phosphorescence in relation to electrical phenomena, A., 814.
 Pohl, R. W. See also Hilsch, R.
 Pohle, F., determination of vapour pressure of saturated aqueous solutions, A., 357.
 Pohle, H., light effect in the system caoutchouc-sulphur, A., 140.
 Pohlmann, J., and Rassers, J. R. F., removal of albuminous substances from saccharine [sugar] juices, molasses, etc., (P.), B., 832.
 Poindexter, R. W., jun., and California Cyanide Co., Inc., preparation of [pure] calcium cyanide, (P.), B., 157.
 Pointon, J. E. See Baker Perkins, Ltd.
 Poister, R. S., effects of chromium and nickel in cast iron, B., 17.
 Pokorny, K. See Liarg, D.
 Pokrovski, G. I., scattering of light in dispersed systems of high concentration, A., 461.
 optical characterisation of spark emission spectra, A., 680.
 form and structure of soil particles, A., 835.
 Pokrovski, G. I. See also Voronkov, G. P.
 Polack, H. See Krause, E.
 Polack, W. G. See Moore, J. W.
 Polak, F., and Tychofski, A., conversion of α - into β -diastase, A., 328.
 Polan, E. See Field, Ltd., J. C. & J.
 Póányi, M., deformation, rupture, and hardening of crystals, A., 9, 576*.
 theory of wall reactions, A., 718.
 inhibition of chain reactions by bromine, A., 1336.
 Póányi, M., and Bogdandy, S. von, production of finely-distributed mixtures of mutually insoluble bodies, (P.), B., 506.
 determining composition of copper and zinc alloys, (P.), B., 677*.
 Póányi, M., and Schay, G., chemiluminescence between alkali metal vapours and tin halides, A., 571.
 highly attenuated flames. III. Sodium-chlorine flame; evidence for and analysis of the reaction and luminosity mechanism; both reaction types, A., 1339.
 Póányi, M., and Welke, K., adsorption and heat of adsorption of sulphur dioxide on carbon, A., 580.
 Póányi, M. See also Beutler, H., Bogdandy, S. von, Goldmann, F., and Heyne, W.
 Polessitsky, A. See Chlopin, V.
 Policard, A., determination of mineral matter in various parts of a cell by micro-incineration, A., 665.
 calcium content of bone cartilage, A., 913.
 Pollitz, F., powder for welding castings, particularly of grey cast iron, (P.), B., 489.
 Poljakov, M., contact activation of hydrogen by metals, A., 459, 720*.
 activation of hydrogen by the contact action of palladium, A., 1308.
 Pollacchi, C., and Coty Société Anonyme Suresnes, extraction of colouring matter from henna leaves, (P.), B., 475*.
 Pollack, H., micrurgical studies in cell physiology. VI. Calcium ions in living protoplasm, A., 793.
 Pollack, H. J. See Schmitz, E.
 Pollak, A., manufacture of yeast, especially by the aëration process, (P.), B., 653*.
 Pollak, E., conversion of blood- into bile-pigments, A., 1270.
 Pollak, F. See Ripper, K.
 Pollak, I., and Dietz, R., micro-Kjeldahl method for determination of total nitrogen in soils, B., 381.
 Pollak, J., and Blumenstock-Halward, E. [with Schlesinger, A., Weinmayr, V., and Winter, K.], constitution of the β -naphthol-disulphonic chlorides, A., 751.
 Pollak, J., Gebauer-Fülneegg, E., and Blumenstock-Halward, E. [with Petertil, E., and Winter, K.], action of chlorosulphonic acid on phenols. V. [Naphthols], A., 751.
 Pollak, J., Riesz, E., and Kahane, Z., aminothiophenol [benz-thiazole] derivatives, A., 904.
 Pollak, L., electro-osmose tanning, B., 763.
 Pollak, L. See also Hirschhorn, S., and Kriss, B.
 Pollak, R. See Gebauer-Fülneegg, E.
 Pollak, S. See Grossmann, M.
 Pollard, W. S., Roberts, A. M., and Bloomfield, A. L., chloride, base, and nitrogen content of gastric juice after histamine stimulation, A., 1400.
 Pollard, A., and Robinson, R., orienting influence of free and bound ionic charges on attached simple or conjugated unsaturated systems. II. Nitration of 1-benzylpiperidine and some related substances, A., 71.
 Pollock, R. T., cracking of hydrocarbon oil, (P.), B., 358.
 Pollock, R. T., and Universal Oil Products Co., cracking of petroleum oil, (P.), B., 221.
 treatment of hydrocarbons, (P.), B., 471.
 cracking [of hydrocarbon] oils, (P.), B., 702.
 Pollock, R. T. See also Egloff, G.
 Pollopas, Ltd., Baly, E. C. C., and Baly, E. J., manufacture of dimethylolurea [bishydroxymethylcarbamide], (P.), B., 921.
 Polonovski, Max, and Polonovski, Michel, ψ -scopine and scopoline, A., 310.

- Polonovski, *Maz*, and Polonovski, *Michel*, amino-oxides of alkaloids. IV. Transformation of a derivative of the *N*-oxide of scopolamine into a quaternary scopinium derivative, A., 310.
amino-oxides of alkaloids. V. *N*-Oxides of ψ -tropine and of tropacocaine, A., 532.
constitution of ψ -scopine, A., 908.
- Polonovski, *Michel*, and Swyngedauw, *J.*, buffering power of gastric fluids, A., 666.
- Polonovski, *Michel*. See also Polonovski, *Maz*, and Swyngedauw, *J.*
- Polvani, *G.*, broadening of spectral lines by the Doppler effect, A., 1165.
- Polysius, *G.*, [grinding body for] tube and drum mills, (P.), B., 143.
linings for rotary kilns, (P.), B., 265.
manufacture of aluminous cement, (P.), B., 299.
- Polysius, *G.* See also Goebels, *P.*, Hasselbach, *A.*, Ihlefeldt, *J.*, and Luther, *F.*
- Pomilio, *U.*, industrial hygiene in relation to the manufacture of artificial silk in Italy, B., 349.
- Pommée, *J.*, production of filling for dissolved gas [storage of explosive gases], (P.), B., 514*.
- Pomp, *A.*, behaviour of steel under prolonged stress at high temperatures, B., 194.
[mechanical properties of] boiler-plate [steels], B., 486.
comparative tests on the mechanical properties of cast steel at elevated temperatures, B., 818.
- Ponder, *E.*, hæmolysis by brilliant-green and serum, A., 1392.
- Ponder, *E.*, and Yeager, *J. F.*, inhibitory effect of sugars on hæmolysis by sodium taurocholate, A., 913.
- Pongratz, *A.*, perylene and its derivatives. XV. and XVIII., A., 177, 1376.
- Ponte, *A.*, retarding action of tannins in the atmospheric oxidation of the alkali bisulphites, B., 205.
- Ponte, *M.*, excitation of spectra by high-frequency oscillations, A., 212.
mercury spectra, A., 450.
absorption of the vapour of excited mercury and reversal of the green ray and of its satellites, A., 808.
- Pontopidan, *C.*, grinding of cement and similar materials, (P.), B., 194.
- Ponzio, *G.*, dioximes. L., A., 888.
- Ponzio, *G.*, and Cerrina, *C.*, dioximes. XLVI., A., 414.
- Ponzio, *G.*, and De Paolini, *I.*, dioximes. XLIII., A., 47.
- Pool, *C. L.* See Scott, *W. J.*
- Pool, *M. L.*, post-arc conductivity and metastable states in mercury, A., 100.
- Pool, *T. A.* See Watt, *J.*
- Poole, *H. G.*, separation of phthalic and homophthalic acids, A., 757.
- Poole, *H. G.* See also Davies, *W.*
- Poole, *H. H.*, and Poole, *J. H. J.*, thermal instability of the earth's crust, A., 730.
- Poole, *J. H. J.*, formation of pleochroic haloes in biotite, A., 215.
action of heat on pleochroic haloes, A., 215.
simple form of photo-electric photometer, A., 388.
- Poole, *J. H. J.* See also Poole, *H. H.*
- Pooley, *H., jun.*, waste heat in Portland cement manufacture, B., 448.
heat balance in rotary cement kilns, B., 749.
- Popberger, *F.* See Janke, *L. A.*
- Pope, *G. A.* See Canning & Co., Ltd., *W.*
- Pope, *R. W.* See Imperial Chemical Industries, Ltd.
- Pope, (Sir) *W. J.*, manufacture of ketones, (P.), B., 427.
- Popov, *A.*, rôle of calcium in the nutrition and some biological processes of the animal organism, A., 441, 1397.
- Popov, *B.*, radiate crystallisation, A., 112.
- Popov, *P. G.*, identification of cadmium by the drop method, A., 1206.
separation of cadmium from copper in qualitative analysis, A., 1206.
- Popov, *S.*, and Kunz, *A. H.*, [platinum electrodes], A., 143.
- Popov, *S.*, Kunz, *A. H.*, and Snow, *R. D.*, preparation and use of the hydrogen electrode, A., 986.
- Popov, *S.*, and McHenry, *M. J.*, smooth platinum wire for electro-metric titrations in neutralisation reactions, A., 723.
- Popoviciu, *G.* See Nitescu, *I.*, and Urechia, *C. I.*
- Popp, *G.*, detection of arsenic in ashes of cremated corpses, A., 1155.
- Popp, *G.*, chemical development and fixation of latent finger prints, B., 800.
- Popp, *H.*, occurrence of arsenic in tobacco, B., 690.
- Porcher, *C.*, casein formed by acid and casein formed by rennet, and the transformation of the former into the latter, B., 543.
- Porritt, *B. D.*, Dawson, *T. R.*, and British Rubber & Tyre Manufacturers' Research Association, preservative coatings for goods of rubber or like substances, (P.), B., 937.
- Porritt, *B. D.* See also Gallie, *G.*, and Tiltman, *A. H.*
- Porrvik, *G.*, determination of α , β , and γ -cellulose, B., 329.
- Port, *C.*, removal of nicotine from tobacco products, (P.), B., 37.
- Port, *P. J.*, and Newton, *J.*, manufacture of splinterless glass sheet, (P.), B., 817.
- Porter, *A. T.*, production of liquids of medicinal value, (P.), B., 389.
- Porter, *A. W.*, positions of X-ray spectra as formed by a diffraction grating, A., 690.
law of molecular forces, A., 690.
vapour pressures of binary systems, A., 710.
- Porter, *C. R.* See Drew, *H. D. K.*, and Haworth, *W. N.*
- Porter, *E. E.* See Weiser, *H. B.*
- Porter, *F. R.*, chromium plating, B., 95.
- Porter, *M. W.*, potassium, rubidium, caesium, ammonium, and thallium tetroxalates, A., 816.
- Porter, *W. H.* See Mills & Co. [Engineers], Ltd., *J.*
- Porteus, *G.*, mixing, cooking, and drying apparatus or machines, (P.), B., 696.
- Portevin, *A.*, corrosion of nickel alloys, B., 126.
- Portevin, *A.* See also Chevenard, *P.*
- Portheim, *L.* See Eisler, *M.*
- Portier, *P.* See Duval, *M.*
- Portillo, *R.*, adsorptive power of aluminium silicates used pharmaceutically, A., 1318.
- Poschenrieder, *H.* See Rippel, *A.*
- Posega, *R.* See Späth, *E.*
- Posener, *K.*, and Behrens, *W.*, Kahn's albumin-A reaction in serum, A., 320.
- Posnjak, *A.* See Tschugaev, *L. A.*
- Posnjak, *E.*, crystal structure of potassium, A., 463.
- Posorovskaja, *E.* See Magidson, *O.*
- Pospiech, *F.* See Sajitz, *R.*
- Possenti, *A.*, and Scorza, *C.*, centrifugal casting of hollow metal bodies, (P.), B., 821.
- Posternak, *S.*, obtaining the total bodies containing phosphorus and iron which are derived from the proteins of egg yolk, (P.), B., 138.
- Posternak, *S.*, and Posternak, *T.*, natural optically active inositol-tetraphosphoric ester, A., 271.
instability of serine-phosphoric acid chains and the general reaction of tyrosins, A., 1149.
separation and purification of the three phosphorus-containing bodies derived from the proteins contained in egg yolk, (P.), B., 315.
- Posternak, *T.* See Posternak, *S.*
- Poston, *E. V.*, veneering of brick, (P.), B., 572.
- Postovski, *I. J.*, Apollov, *N. A.*, and Lugovkin, *B. P.*, wood-gas-producer tar, B., 660.
- Postovski, *I. J.*, and Pliusnin, *V. G.*, investigation and purification of sulphate-turpentine, B., 668.
- Postovski, *I. N.*, preparation of crystal-violet from oxalyl chloride and dimethylaniline, A., 634.
- Poth, *E. J.*, Armstrong, *W. D.*, Cogburn, *C. C.*, and Bailey, *J. R.*, determination of nitrogen in petroleum and bitumens, B., 178.
- Potiechin, *B.* See Jellinek, *K.*
- Pott, *E.* See Sajitz, *R.*
- Pott, *R. H.*, and Chemische Fabrik Pott & Co., treating and wetting-out fibrous material, (P.), B., 856*.
carbonising woollen fibres, (P.), B., 856*.
- Potter, *H. H.* See Sucksmith, *W.*
- Potter, *H. V.*, Crump, *J. W.*, and Damard Lacquer Co., Ltd., accelerator for hardening phenol-urea products, (P.), B., 419*.
- Potter, *J. R.*, method of determining the absolute zero of temperature, A., 1084.
- Potter, *J. S.*, and Shattuck Chemical Co., *S. W.*, treatment of clays to adapt them for decolorising and deodorising oils, (P.), B., 7.
- Potts, *A. D.* See Howard, *L. E.*
- Potts, *C. H.*, heat exchanger, (P.), B., 506.

- Potts, C. H., and Vickers, Ltd., heat exchanger, (P.), B., 915*.
Potts, W. M. See Nicolet, B. H.
Poulson, J., continuous vertical-retort practice at Oldbury, B., 322.
Poullsson, E., and Lövenskiöld, H., determination of vitamin-D., A., 332.
Poullsson, L. T., micro-colorimetric method for the determination of sodium, A., 564.
Poulter, T. C. See Calhoun, S. F., and Wood, G. M.
Pounder, D. W. See Friend, J. A. N.
Pourbaix, Y., and Kennaway, E. L., liberation from yeast of substances giving the nitroprusside reaction, A., 1056.
Povarnin, G. O., and Liubich, M., swelling, degree of tannage, and mechanical properties of leather, B., 828.
Povarnin, G. G., and Shimanovich, effect of acid concentration in plumping on the mechanical and chemical properties of leather, B., 828.
Poverud, G. See Sonsthagen, A.
Powell, A. R. See Schoeller, W. R.
Powell, E. R., production of rock wool, (P.), B., 235.
Powell, J. R., and Armour & Co., soap stabilisation, (P.), B., 647.
Powell, S. G., [preparation of] β -chloropropionic acid, A., 617.
Powell, S. T., sodium aluminato as an adjunct to alum for the coagulation of public water supplies, B., 70.
Powell, S. T. See also Morse, R. B.
Power, H. R., abrasive compositions, (P.), B., 817.
Power, W. P., Lewis, E., and Broken Hill Proprietary Co., Ltd., blast furnace, (P.), B., 411.
Power-Gas Corporation, Ltd., and Rambush, N. E., [continuous] charging of furnaces with solid material, (P.), B., 176.
water-gas plant, (P.), B., 437.
gas producer plant, (P.), B., 470.
apparatus for cooling, cleaning, or otherwise treating gases or liquids, (P.), B., 697.
Power Specialty Co., heating and cracking of oils, (P.), B., 181.
superheater boilers, (P.), B., 217.
Power Specialty Co. See also Primrose, J.
Powers, E. B., and Bond, J. D., colorimetric field determination of the carbon dioxide tension and free carbon dioxide, hydrogen carbonates, and carbonates in solution in natural waters. II. Critical mathematical analysis of theory and data, A., 498.
Powers, J. L. See Blicke, F. F.
Powers, W. L., sulphur in relation to the soil solution, B., 380.
Powers, W. L. See also Hartman, C., jun.
Powick, W. C., rancidity determinations and a possible source of error in the Kreis test, B., 417.
Powrie, J. H., [multicolour screens for] colour photography, (P.), B., 349.
Pozdniakov, N. G., presence of *o*-arsanilic acid in technical arsanilic acid, B., 799.
Pozerski, E., digestion of crude starch by saliva, A., 795.
Poznanski, S., analysis of mixtures of ethyl alcohol, ethyl acetate, acetic acid, and water, A., 784.
analysis of mixtures of ethyl alcohol, ethyl acetate, acetic acid, and water. III. Determination of minute quantities of acetic acid. IV. General, A., 1043.
equilibrium state for esterification reactions in the liquid phase, A., 1325.
Prachel, C. U., Branchen, L. E., and Eastman Kodak Co., reducing the viscosity of cellulose ethers and products thereof, (P.), B., 810.
Prachel, C. U., and Eastman Kodak Co., reducing the viscosity of nitrocellulose materials, (P.), B., 478.
Prachel, C. U. See also Branchen, L. E.
Prager, S., rational selection of soapmaking properties by means of a new chemical control, B., 454.
Prah, W. See Raschig, F.
Prakash, S., Ghosh, S., and Dhar, N. R., acclimatisation and ionic antagonism with sheep serum and other colloids, A., 951.
Prandtl, W., and Kögl, H., samarium subhalides, A., 721.
Prange, G. See Binz, A.
Prasad, K., and Basu, S., change of resistance of lead by the action of radium, A., 1178.
Prasad, M. See Bhatnagar, S. S.
Prasil, A. See Nelson, R. A.
Prat, E., separation of dust from a gas or mixture of gases, (P.), B., 773.
Pratolongo, U., and Allan, M. P., constitution and properties of certain common anti-speronospore preparations, B., 343.
Pratt, C. D., and Atlas Powder Co., gelatin dynamite, (P.), B., 317.
Pratt, D. D. See Morgan, G. T.
Pratt, W. B., and Dispersions Process, Inc., production of rubber-like bodies, (P.), B., 616.
Pratt, Inc., W. B. See Barnard, A. E.
Prausnitz, P. H., extraction apparatus especially suitable for liquids, A., 728, 863.
efflorescence of carbon, A., 1200.
explosive gas mixtures, B., 803.
Prausnitz, P. H. See also Thiene, H.
Prądziewicz-Neminski, W. W., reaction of blood in the determination of sex; importance of manganese mixtures in a reaction for the determination of sex, A., 317.
Preceptis, P. See Morel, A.
Precious Metal Industries, Ltd. See Warren, A. I. G.
Predvoditelev, A., laws governing molecular collisions at a surface reacting with the gas, A., 232.
Predvoditelev, A., and Witt, A., kinetics of chemical reactions between one solid and one gaseous component which result in the formation of complex compounds, A., 375.
Prée, W. See Müller, Erich.
Preiss, W. See Taüfel, K., and Wagner, C.
Prelinger, H., determination of chlorate-chlorine in bleach liquor, B., 565.
Prell, E. See I. G. Farbenind. A.-G.
Prelog, V. See Lukeš, R.
Premier Oil Extracting Mills, Ltd., and Waterhouse, W. E., preparation of an [earth] worm-killing composition, (P.), B., 796.
Preobraschenski, A. M., purine diuresis in the dog, A., 920.
Preobraschenski, N. See Magidson, O.
Preobraschenski, V. A. See Tschitschibabin, A. E.
Préparation Industrielle des Combustibles, apparatus for crushing and mixing pitch, (P.), B., 6.
Prescott, C. H., jun., and Hincke, W. B., high-temperature equilibrium between thorium oxide and carbon, A., 20.
high-temperature equilibrium between aluminium oxide and carbon, A., 21.
true temperature scale of carbon, A., 226.
Prescott, W. E., Baker Perkins, Ltd., and Ancien Établissement A. Savy, Jeanjean & Cie., Société Anonyme, apparatus for producing refined cocoa liquor from cacao nibs, etc., (P.), B., 387.
Prescott, W. E. See also Baker Perkins, Ltd.
Preservatives Determination Committee of the Manufacturing Confectioners' Alliance and of the Food Manufacturers' Federation, report on determination of sulphur dioxide [in foods], B., 346.
Press, A., extension of Dulong and Petit's law to gaseous compounds and mixtures, A., 696.
thermodynamic integration factor for the derivation of the general form corresponding with the van der Waals-Clausius equation, A., 1096.
Prest-O-Lite Storage Battery Corporation. See Benner, R. C.
Preston, G. D., crystal structure of α -manganese, A., 820.
crystal structure of β -manganese, A., 820.
Preston Street Combining Co., Ltd., and Adams, J. W., centrifugal liquid purifiers, (P.), B., 773.
Pretschner, F. See Schmidt, H. H.
Pretty, W. E., Swan band spectrum of carbon, A., 686.
Prévost, C., allyl transposition and the mechanism of esterification, A., 152.
erythrene and its dibromides, A., 613.
allyl transposition and additive derivatives of erythrene hydrocarbons, A., 1111, 1211.
semisaturated derivatives of erythrene hydrocarbons, A., 1212.
Prianechnikov, D. N., liberation of ammonia by the roots of plants during acid poisoning, A., 562.
Prianechnikov, N. D., action of the silent electric discharge on hydrocarbons of the ethylene series, A., 866.
Prianechnikov, N. D., jun., and Lukovnikov, E. K., absorption of aluminium and iron by soil, B., 279.
Price, H. T., treatment of bagasse fibres preparatory to pulp board making, (P.), B., 229.
Price, R. A., and Western Electric Co., Inc., incandescence electric lamp, (P.), B., 611.
Price, W. B., Grant, C. G., and Phillips, A. J., α -phase boundary of the copper-nickel-tin system, A., 842.
Price, W. B., and Smiles, S., naphthylene-1:8-disulphide, A., 1239.

- Price, *W. L.* See Fraser, *H. A.*
 Price, *W. V.*, addition of calcium chloride to milk for cheese-making, B., 138.
 Pritchard, *G. L.*, and Gulf Refining Co., cracking oils, (P.), B., 663.
 Prideaux, *E. B. R.*, and Cox, *C. B.*, selenium oxyfluoride, A., 495.
 selenium tetrafluoride, A., 855.
 Priester, *R.* See Waterman, *H. I.*
 Priestley, *J. J.*, and Cobb, *J. W.*, influence of inorganic constituents in the carbonisation and gasification of coal. II. Liberation of sulphur, B., 556.
 Priewe, *H.* See Schotte, *H.*
 Prikladovizky, *S.*, and Apollonov, *A.*, iodometric micro-method for the determination of chloride, A., 1391.
 Priležav, *S.* See Lukirsky, *P.*
 Prillwitz, *H.* See I. G. Farbenind. A.-G.
 Primos Co. See Handy, *J. O.*
 Primrose, *J.*, and Power Specialty Co., oil still, (P.), B., 117*.
 Prince, *A. L.* See Blair, *A. W.*, and Lipman, *J. G.*
 Prince, *G. W.*, English, *J. H.*, and United Verde Extension Mining Co., treatment of copper ores, (P.), B., 270.
 Prince, *G. W.*, and United Verde Extension Mining Co., reverberatory furnace, (P.), B., 57.
 Prince, *J. D.* See Fink, *C. G.*
 Princivalle, *E.* See Gastaldi, *C.*
 Prindle, *E. J.* See Moyer, *M. L.*
 Prindle, *R. B.* See British Thomson-Houston Co., Ltd.
 Pringsheim, *H.*, and Baur, *K.*, hydrolysis of lichenin and cellulose by the enzymes of barley malt, A., 671.
 Pringsheim, *H.*, Bondi, *J.*, and Thilo, *E.*, complement of the amylases. VI., A., 1280.
 Pringsheim, *H.*, and Braun, *H.*, relation of lichosan to lichenin. II., A., 1016.
 Pringsheim, *H.*, and Fellner, *I.*, inulin. VI., A., 742.
 Pringsheim, *H.*, and Ferngross, *O.*, influence of disaggregation on the fluorescence of complex natural substances, A., 1171.
 Pringsheim, *H.*, Kasten, *E.*, and Schapiro, *E.*, new degradation of cellulose. I., A., 1226.
 Pringsheim, *H.*, Kusnack, *W.*, and Weinreb, *K.*, state of aggregation of cellulose acetate, B., 84.
 Pringsheim, *H.*, and Liss, *G.*, salep-mannan, A., 1016.
 Pringsheim, *H.*, and Meyersohn, *P.*, starch, A., 742.
 Pringsheim, *H.*, and Reilly, *J.*, inulin. VII., A., 1225.
 Pringsheim, *H.*, and Schapiro, *E.*, primary and secondary cellulose acetates, B., 743.
 Pringsheim, *H.*, Weinreb, *K.*, and Kasten, *E.*, structural matter of the leaves of white cabbage, A., 1227.
 Pringsheim, *H.*, and Will, *G.*, starch. XXI. Constitution of glycogen, A., 1225.
 Pringsheim, *P.*, Raman effect, A., 936.
 absorption and fluorescence of iodine vapour, A., 1308.
 Pringsheim, *P.*, and Rosen, *B.*, band system in the spectrum of iodine vapour, A., 1072.
 Raman effect in organic liquids, A., 1307.
 Pringsheim, *P.*, and Terenin, *A.*, band fluorescence of mercury vapour, A., 345.
 Pringsheim, *P.* See also Orthmann, *W.*
 Prins, *H. J.*, catalytic action of aluminium chloride, A., 139.
 Prins, *J. A.*, dispersion and absorption of X-rays, A., 451.
 Prins, *J. A.* See also Coster, *D.*
 Prinz, *H.* See Fränkel, *S.*
 Prior, *G. T.*, alkali-lavas from Mount Nimrud, Armenia, A., 987.
 Pritchard, *G. L.*, Henderson, *H.*, and Gulf Refining Co., distillation of oils with catalysts, (P.), B., 633.
 Pritchard, *H. A.*, fog correction of photographic blackening, B., 245*.
 Pritzker, *J.*, acetaldehyde, A., 619.
 Pritzker, *J.*, and Jungkunz, *R.*, analysis of vanillin and vanillin sugar, A., 1009.
 origin and detection of rancidity in fats and oils, B., 60.
 almond, apricot kernel, and peach kernel oils, B., 60.
 vanilla, vanillin, and their mixtures with sugar, B., 834.
 Probeck, *E. J.*, and Battle, *H. W.*, action of pigments in metal primers, B., 274.
 Probert, *M. E.* See Fargher, *R. G.*
 Proca, *A.*, interference of light quanta, A., 456.
 Procoudine Gorsky & Cie., *S.*, production of gelatin relief pictures, (P.), B., 427.
 Proctor, *H. A.*, heating of pulverised fuel, (P.), B., 251.
 [tunnel] furnaces, (P.), B., 551.
 Proctor, *R. F.* See Hyslop, *J. F.*
 Proctor & Schwartz, Inc. See Rhoads, *T. H.*
 Prodorite, *S. A.* See Lévy, *M.*
 Prodorite, Ltd., and Continentale Prodorit Akt.-Ges., pitch compositions, (P.), B., 126.
 Proescher, *F.*, and Arkush, *A. S.*, metallic lakes of the oxazines (gallamin-blue, galloxyaniline), and celestin-blue as nuclear stain substitutes for hamatoxylin, A., 318.
 Pröschoold, *O.*, blowpipe test for metals, A., 983.
 Proffe, *S.* See Brunius, *E.*, and Euler, *H. von.*
 Prokofiev, *V. K.*, anomalous dispersion in calcium, strontium, and bromine vapour, A., 1309.
 Prokofiev, *V. K.*, and Soloviev, *V. N.*, anomalous dispersion in thallium vapour, A., 577.
 Prokop, *E.*, influence of alcohols on the bile-stimulating action of salts of bile acids, A., 919.
 Prokopenko, *N.*, enzyme content of germinating wheat, A., 1289.
 Proner, *M.*, determination of halogens in organic compounds, A., 436.
 Proskouriakoff, *A.* See Raiziss, *G. W.*
 Proskurnin, *M.*, and Kasarnovski, *J.*, salt-like hydrides. III., A., 697.
 Proskurnina, *N. F.* See Stadnikov, *G.*
 Prosz, *J.*, volumetric determination of small quantities of thallium, A., 726.
 Prouty, *T. C.*, and Prouty, *W. O.*, electric [tunnel] kiln, (P.), B., 571.
 Prouty, *T. C.*, Prouty, *W. O.*, and American Encaustic Tiling Co., Ltd., circular kiln [for ceramic products], (P.), B., 749.
 Prouty, *W. O.* See Prouty, *T. C.*
 Provine, *E. A.* See Freas, *R.*
 Provino, *R.* See Surmount, *H.*
 Prucha, *M. J.*, chemical sterilisation in the dairy industry, B., 586.
 Prucha, *M. J.* See also Campbell, *M. H.*
 Prudhomme, *E. A.*, and Société Internationale des Procédés Prudhomme (S.I.P.P.), refining and stabilisation of hydrocarbons, (P.), B., 779.
 Prüss, *M.*, accelerating the sludge digestion for sewage treatment (P.), B., 142.
 artificially heating sludge-digestion chambers, (P.), B., 838.
 Prutsman, *H. C.* See Kritchevsky, *V.*
 Prutzman, *P. W.*, and Contact Filtration Co., decolorisation of oils under pressure, (P.), B., 150.
 decolorisation of [lubricating] oils at high temperatures, (P.), B., 438.
 Prybill, *A.*, and Maurer, *K.*, activity and ageing of ergot preparations, B., 912.
 Pryde, *D. R.* See Soper, *F. G.*
 Pryor, *E. A. C.* See United Glass Bottle Manuf., Ltd.
 Prytz, *M.*, activity of hydrogen ions in aqueous solutions of beryllium sulphate, A., 590.
 complex formation in solutions of stannous chloride and of stannous bromide, A., 708.
 hydrolysis measurements in solutions of stannous salts, A., 1189.
 Przeborowski, *J.*, and Fleissner, *M.* [with Pofowa, *T.*], effect of neutral salts on potential of hydrogen electrode. III., A., 23.
 Przesmycki, *F.*, antigens, A., 448.
 Przibram, *K.*, blue rock-salt, A., 391.
 light absorption and coloration of alkali halides, A., 1171.
 Przylecki, *S. J.*, uricase and its action. I. Preparation, A., 1055.
 influence of structure on the kinetics of desmolases. I. Systems uricase-uric acid-active and inactive charcoal or protein, A., 1055, 1284*.
 preparation of uricase, A., 1402.
 Przylecki, *S. J.*, Giedroyc, *W.*, and Sym, *E. A.*, structure and enzyme reactions. V. and VI. The systems dextrose-enzyme and ester-catalyst, A., 796.
 Przylecki, *S. J.*, and Niedzwiecka, *H.*, structure and enzyme reactions. III. System polysaccharide-amylase-protein, A., 328.
 Przylecki, *S. J.*, and Truszkowski, *R.*, action of uricase; properties of uricase, A., 1401.
 Przylecki, *S. J.*, and Wójcik, *J.*, structure and enzyme reactions. VII. The system glycogen-amylase-liver tissue, A., 1280.
 Publow, *H. L.*, and Waldron, *L. J.*, grain growth in low-carbon steel, B., 525.
 grain formation in low-carbon steel within the critical range, B., 525.

- Pucher, G. W., changes in blood and urine of starving puppies, A., 323.
- Pucher, G. W., and Finch, M. W., comparative reduction values of carbohydrates by the Hagedorn-Jensen, Benedict-Myers, and Folin-Wu methods, A., 274.
- Puech, A. See Cristol, P.
- Puening, F., heating apparatus, (P.), B., 39.
cracking of oils, (P.), B., 358.
- Puening, F., and Koppers Co., [tar] still, (P.), B., 357.
- Pürckhauer, R., exchange acidity in primary soils, B., 617.
- Pützer, B. See Fischer, Hans.
- Pugh, C. E. M., and Raper, H. S., action of tyrosinase on phenols; classification of oxidases, A., 202.
- Pulewka, P. See Haffner, F.
- Pulkki, L. See Virtanen, A. I.
- Pullen, Ltd., J. H., and Stewart, J., grinding or crushing machines, (P.), B., 772.
- Pulsifer, H. B., magnesium; its etching and structure, A., 694.
- Pulsometer Engineering Co., Ltd., and Björnstad, J., plant for dealing with sewage, (P.), B., 428.
- Pulvertfabr. Skoda-Wetzlar A.-G., and Feigensohn, M., manufacture of sulphuric acid, (P.), B., 927.
- Pummerer, R., Andriessen, A., and Gündel, W., purification and fractionation of caoutchouc. VII., B., 793.
- Pummerer, R., and Gündel, W., preparation and mol. wt. of isocaoutchouc nitron. VIII., B., 793.
- Pummerer, R., and Luther, F., oxidation of phenols. X. Addition of triphenylmethyl to radicals with univalent oxygen and to aromatic peroxides, A., 768.
- Pummerer, R., and Rehmann, L., carotin, A., 765.
- Pummerer, R. See also I. G. Farbenind. A.-G.
- Pungs, W. See I. G. Farbenind. A.-G.
- Puntambeker, S. V., and Zoellner, E. A., [preparation of] trimethylacetic acid, A., 617.
- Puodžiukynas, A., electrical conductivity of palladium in a vacuum and in different gases, A., 353.
- Purcell, R. H., intensive drying, A., 717.
- Purcell, R. H. See also Emeléus, H. J.
- Purdy, J. M. See Fasig, E. W.
- Purdy, M. A., and Pacific Distributing Corporation, purification of sodium sulphate, (P.), B., 602.
- Purdy, R. C., and MacGee, A. E., physical properties of artificial aluminous abrasives, B., 483.
- Pure Oil Co. See Harnsberger, A. E., and Watson, C. B.
- Puri, A. N., and Arnin, B. M., methods of preparation of soil for mechanical analysis, B., 796.
- Purity Chemical Co. See Odom, L. L.
- Purkayashita, R. M., and Ghosh, J. C., photochemical reaction between bromine and cinnamic acid or stilbene. II. and III., A., 172, 256.
- Purks, H., fine structure in the K-series of copper and nickel and the width of spectral lines, A., 819.
- Purks, H. See also Davis, B.
- Purox Co. See Mott, C.
- Purtyman, G. S., treatment of gases, fumes, etc., (P.), B., 75.
- Purvis, J. E., absorption spectra of various alkaloids and their salicylates and of other derivatives of salicylic acid, A., 5.
influence of different nuclei on the absorption spectra of organic compounds, A., 934.
- Pushin, N. A., and König, D., equilibrium in binary systems containing carbamide as one component, A., 711.
- Pushin, N. A., and Sladovic, L., equilibrium in the binary systems ethylenediamine-phenols, A., 694.
equilibrium in binary systems cresols-amines, A., 1100.
- Putjata, E. See Petrenko-Kritschenko, P.
- Putnam, P. C., Roberts, E. J., and Selchow, D. H., determinative mineralogy. I., II., III., and IV., A., 267, 498, 727, 861.
- Putochin, N., isomerisation phenomena in heterocyclic nitrogen compounds, A., 771.
- Puttick, A. See Allmand, A. J.
- Putzeys, P., reaction between iodic and hydriodic acids in very dilute solution and the titration of the liberated iodine with thiosulphate, A., 144.
- Puxeddu, E., phenomena of inertia and chemical reactions, A., 484.
action of phenylhydrazine on metallic oxides and salts. II. [Preparation of] lead suboxide, A., 721.
- Puzillo, V. G. See Nametkin, S. S.
- Pyhäälä, E., hardening and esterifications of rosin, B., 100.
- Pyhäälä, E., spontaneous decomposition reactions of berginisation: a reaction common to various petroleum hydrocarbons, B., 250.
behaviour of Emba crude oil in the refinery, B., 510.
- Pyman, F. L. See Barnes, G. R., and Hubball, W.
- Pyman, R. See Grindley, R.
- Pynde, G. T., losses in mangels during storage, A., 1290.
- Pyridium Corporation. See Ostromislensky, I.
- Pyrki, C. See Heiduschka, A.
- Pyzel, D., and Simplex Refining Co., circulating dephlegmator [for oil refining], (P.), B., 703.

Q.

- Quagliarriello, G., action of cold on the fats of milk, B., 500.
- Quagliarriello, G., and De Lucia, P., stereochemical transformation of dextrose by the action of insulin and of muscular tissue, A., 90.
reactions between sugars and amino-acids, A., 620.
- Quaker Oats Co. See Trickey, J. P.
- Quam, G. N., mechanical agitator, A., 1208.
- Quam, G. N., and Hellwig, A., copper content of milk, A., 1152.
- Quam, G. N., Soloman, E. I., and Hellwig, A., influence of temperature on rate of corrosion of copper by milk, B., 798.
- Quarck, R. See Merrill, H. B.
- Quartaroli, A., determination of minimal amounts of manganese, copper, and iron in biological investigations, A., 96.
copper as a normal component of plants, A., 561.
- Quartz & Silice, pressing of articles of fused silica, (P.), B., 484.
manufacture of fused silica, (P.), B., 524.
manufacture of transparent fused pure silica, (P.), B., 642.
- Quasi-Arc Co., Ltd., and Strohmenger, A. P., fusible electrodes for use in electric arc-welding, (P.), B., 932.
- Quast, G. See Hesse, E.
- Quast, H. See Klostermann, M.
- Quastel, J. H., and Wooldridge, W. R., properties of the dehydrogenating enzymes of bacteria, A., 797.
- Quastel, J. H. See also Dann, W. J., and Harrison, D. C.
- Quelet, R., *d*-bromo- Δ^2 -butenylbenzene, A., 280.
action of magnesium on some ethylenic derivatives of *p*-bromobenzene, A., 513.
- Quell, M. H. See Olsen, J. C.
- Quick, A. J., β -oxidation. I. Conjugation of benzoic and phenylacetic acids formed as end-products from the oxidation of phenyl-substituted fatty acids, A., 754.
- Quiggin, D. A., distilling apparatus [for boiler-feed water], (P.), B., 550.
- Quiggle, D. See Frolich, P. K.
- Quilico, A., action of aminosulphonic acid on diphenols, A., 168.
sulphonation of phenolic ethers by means of aminosulphonic acid, A., 407.
action of aminosulphonic acid on unsaturated compounds, A., 517.
action of nitrosodimethylaniline on unsaturated compounds, A., 880.
- Quilico, A., and Freri, (Signa.) M., coupling of diazonium salts in the side-chains of unsaturated compounds. I., A., 997.
- Quillard, C., differentiation of aluminium alloys based on the use of p_H indicators, B., 94.
reactivity of fuels, B., 628.
- Quincke, H. See Eismayer, G.
- Quinn, E. J. See Sherman, H. C.
- Quinn, E. L., surface tension of liquid carbon dioxide, A., 11.
internal pressure of liquid carbon dioxide from solubility measurements [of naphthalene and iodine], A., 470.
solubility of lubricating oil in liquid carbon dioxide, B., 640.
- Quintin, M., relation between activity of metallic ions and that of hydrogen ions in the hydrolysis of heavy-metal salts, A., 241*.
- Quirk, R. F. See Wightman, E. P.
- Quitmann, H. See Anschütz, R.
- Quitt, R. See Kock, H.
- Quittner, F., migration of ions from aqueous solutions into glass, A., 572.
- Quittner, H., manufacture of elastic, waterproof coatings, (P.), B., 24*.
- Qvist, W., *d*-borneol and *cis*-terpin from distillation residues of sulphate-turpentine oil, B., 767.

R.

- Raab, *E.*, combination of potassium in muscle, A., 318.
 Raab, *W.*, glycolysis, A., 663.
 Raall, *H.* See Levy, *P.*
 Raalte, *A. van*, luminescence of oils and fats, B., 792.
 Raaschou, *P. E.*, simple method for determining the absolute viscosity of oils, B., 429.
 Rabald, *E.*, [influence of gelatin on the potential and discharge potential of zinc in zinc sulphate solution], A., 371.
 Rabas, *A.* See Dubský, *J. V.*
 Rabaté, *G.* See Bridel, *M.*
 Rabbeno, *A.*, influence of climatic factors on the cholesterol of the blood and suprarenal capsule. I.—III., A., 443.
 Rabe, *H.* See Tammann, *G.*
 Rabinerson, *A.*, electro-osmosis and anion effect, A., 833.
 Rabinovitch, *A. J.*, and Burstein, *R.*, coagulation of colloids with electrolytes. I., A., 361.
 Rabinovitch, *A. J.*, and Dorfmann, *W. A.*, coagulation of colloids by electrolytes. II. Conductometric study of the coagulation of arsenic trisulphide sols, A., 361.
 Rabinovitch, *A. J.*, and Kargin, *V. A.*, applicability of the quinhydrone electrode in electrometric titration. I. and II., A., 382, 1106.
 coagulation of colloids by electrolytes. III. Potentiometric titration of the coagulation of ferric hydroxide sols, A., 586.
 Rabinovitch, *A. J.*, and Laskin, *E.*, electrochemistry of colloids. I. Colloidal silicic acid, A., 835.
 Rabinovitch, *A. J.* See also Petrov, *G. S.*
 Rabinovitch, *E.*, physical methods in chemical laboratories. IV. Significance of spectroscopy in chemical investigations. I., A., 728.
 physical methods in chemical laboratories. VII. Spectroscopy as an aid in chemical research. II., A., 1208.
 Rabinovitch, *I. M.*, significance of the non-fermentable reducing substances of the blood in diabetes, A., 790.
 Rabinovitch, *M. A.*, nature of the glow on heating finely-divided oxides and metals, A., 217.
 conductometric and cryoscopic study of the dimethylpyrone compounds of acetic and the chloroacetic acids in benzene, A., 367.
 conductivity and f.p. measurements for the dimethylpyrone salts of acetic and the three chloroacetic acids in benzene solution, A., 954.
 Rabl, *R.* See Brünig, *H.*
 Racatz, *R. A.*, and Spees, *J. M.*, ammonia liberation from ammonium sulphate solutions by various limes, B., 566.
 Racheeff, *B.*, and Gofmann, *M.*, chemical process for welding of metals, (P.), B., 97.
 Radcliffe, *J.*, road making, (P.), B., 126*.
 Radcliffe, *L. G.*, and Swann, *W. J. N.*, determination of citral and similar aldehydes [in essential oils], B., 243.
 Radeff, *T.*, catalase value and catalase index of ox blood, A., 317.
 sodium chloride and protein content of the serum of pigs in feeding, A., 324.
 Rademacher, *R.*, and Goebel, *E.*, magnetic separation of minerals, (P.), B., 413.
 Radestock, *H.* See Lottermoser, *A.*, and Olszewski, *W.*
 Radio Corporation of America. See Friederich, *E.*
 Radiowerk *E. Schrack.* See Schrack, *E.*
 Radt, *P.*, intermediary carbohydrate metabolism. XXIV. Lack of influence of insulin on the mutarotation of dextrose and laevulose, A., 90.
 colorimetric determination of laevulose in blood by the diphenylamine method, A., 1151.
 Radt, *P.* See also Kronenberger, *F.*
 Rae, *J.*, colorimetric test for tannic acid, A., 758.
 removal of peroxides from anaesthetic ether, B., 139.
 detection of traces of carbonate, B., 856.
 Rae, *N.*, seasonal variations in the composition of the latex of *Hevea brasiliensis*, B., 579.
 Raeder, *M. G.*, and Brun, *J.*, overvoltage of alloys, A., 597.
 Räth, *C.*, preparation of means for fighting bacterial diseases, (P.), B., 36.
 preparation of 5-iodo-2-aminopyridine, (P.), B., 548*.
 preparation of hydrazinopyridine compounds [3-pyridylhydrazine and its derivatives], (P.), B., 548*.
 Räth, *C.* See also Binz, *A.*
 Raewsky, *A. S.*, isoelectric state of bouillon containing toxin, A., 1286.
 Raffinerie Tirlemontoise Société Anonyme, decolorisation of sugar crystals, (P.), B., 31.
 curing of massecuite, (P.), B., 31.
 removal of false grain from sugar syrups or molasses, (P.), B., 31.
 preliminary treatment of raw sugar, after-product sugar, etc. before refining, (P.), B., 280.
 refining of massecuite or other crystalline materials, (P.), B., 345.
 Raffin, *R.*, urinary elimination of ammonia and nitrogen; some urinary constants, A., 1047.
 Raffloer, *E.*, and Leuchtenberg, *W. E.*, desulphurisation of gases, (P.), B., 632.
 Ragg, *M.*, and Rahtjen, *F.*, production of [pigment] mixtures containing metal powder, (P.), B., 237.
 Rahder, *H.*, the red lead question, B., 99.
 Rahlfs, *E.* See Biltz, *W.*
 Rahtjen, *F.* See Ragg, *M.*
 Raiford, *L. C.*, and Davis, *H. L.*, condensation products of benzylideneacetophenone [phenyl styryl ketone] and some of its derivatives, A., 303.
 Raiford, *L. C.*, and Mortensen, *F. C.*, migration of acyl from nitrogen to oxygen, A., 630.
 Raiford, *L. C.*, and Stoesser, *W. C.*, bromine substitution products of vanillin and some derivatives, A., 1246.
 Raikov, *P. N.*, structure of hydrogen peroxide, and mechanism of its reactions, A., 256.
 Railing, *A. H.*, and Eley, *H. J.*, centrifugal apparatus for spinning artificial silk, (P.), B., 331.
 Rainbow Light, Inc. See Machlett, *R. R.*
 Raineau, *A.* See Audibert, *E.*
 Raitt, *W.*, bamboo [for papermaking], B., 477.
 Raiss, *G. W.*, Proskouriakoff, *A.*, and Abbott Laboratories, manufacture of compounds [salts] of acetamidosalicylic acid with aliphatic amines, (P.), B., 173.
 Rak, *A.*, batteries for continuous diffusion of sugar and the like, (P.), B., 383.
 Rakett, *H.* See Biltz, *H.*
 Rakovski, *A. V.*, preparation of chemically pure chromic anhydride, A., 496.
 Rakovski, *A. V.*, and Tarasenkov, *D.*, solubility of chromic anhydride in aqueous solutions of sulphuric acid, A., 471.
 equilibria in the ternary system chromium trioxide-sulphur trioxide-water, A., 957.
 Rakovski, *V.* See Stadnikov, *G.*
 Rakshit, *J. N.*, relation between water and salts in crystalline hydrates and in solutions, A., 357.
 Rakuzin, *M. A.*, action of aniline dyes on albumin, caseinogen, and gelatin, A., 312.
 irreversible dehydration of some crystalline hydrated salts, A., 1095.
 constitution of hydrated crystals, A., 1311.
 Rakuzin, *M. A.*, and Itzkin, *E.*, behaviour of magnesium hydroxide towards solutions of mercuric chloride and salts of trivalent arsenic, A., 549, 701.
 Ralston, *A. W.*, and Wilkinson, *J. A.*, reactions in liquid hydrogen sulphide. III. Thiohydrolysis of chlorides, A., 381.
 reactions in liquid hydrogen sulphide. IV. Thiohydrolysis of esters, A., 961.
 Ralston, *O. C.* See Tilley, *G. S.*
 Ram, *N.* See Krishna, *S.*
 Ramage, *A. S.*, manufacture of peroxide [ozonides] of hydrocarbons [turpentine substitutes], (P.), B., 937*.
 Ramage, *W. D.* See Miller, *R. C.*
 Raman, *C. V.*, thermal degeneration of the X-ray haloes in liquids, A., 6.
 thermodynamics, wave-theory, and Compton effect, A., 101.
 change of wave-length in light scattering, A., 570.
 new radiation, A., 685.
 Raman, *C. V.*, and Krishnan, *K. S.*, theory of electric and magnetic birefringence in liquids, A., 113.
 optical and electrical properties of liquids, A., 348.
 theory of light-scattering in liquids, A., 461.
 new type of secondary radiation, A., 461.
 optical analogue of the Compton effect, A., 571.
 theory of the birefringence induced by flow in fluids, A., 573.
 negative absorption of radiation, A., 807.
 polarisation of scattered light quanta, A., 936.
 new class of spectra due to secondary radiation. I., A., 1075.

- Raman, C. V., and Sirkar, S. C., disappearance and reversal of the Kerr effect, A., 688.
- Raman, C. V., and Sogani, C. M., critical-absorption photometer for the study of the Compton effect, A., 938.
- Ramann, E. [with Hanley, J. A., Krauss, G., Rüger, H., Sallinger, H., and Storz, M.], colloid researches on discharge phenomena and adsorption with quartz suspensions, A., 362.
- Ramart, (Mme.) P., comparative stability of isomerides and their absorption spectra, A., 760.
- Ramart, (Mme.) P., and Amagat, (Mlle.) P., molecular migrations, A., 170.
- Ramart, (Mme.) P., and Anagnostopoulos, comparative stability of different isomerides according to their absorption spectra; rearrangements in α -aryl- β -phenyl- β -ethylbutan- α -ols, A., 881.
- Ramart, (Mme.) P., and Salmon-Legagneur, F., intramolecular rearrangement by photochemical action, A., 255.
- action of magnesium organo-derivatives on trisubstituted acetonitriles, A., 522.
- relative stability of isomerides and absorption spectra; transformations in the glycol and aldehyde series, A., 1000.
- Ramart-Lucas. See Ramart.
- Ramasubramanyam, S. S., thermal degeneration of the X-ray haloes in liquids and amorphous solids, A., 1312.
- Rambaud. See Bourguet, M.
- Ramberg, L., and Heuberger, J. F., thermostat for polarimetric work, A., 1348.
- Rambush, N. E. See Power-Gas Corp., Ltd.
- Ramdas, L. A., spectrum of potassium excited during its spontaneous combination with chlorine, A., 1296.
- Raman effect in gases and vapours, A., 1307.
- Ramelet, E., purely electronic amplification method for counting corpuscular rays, A., 1069.
- Ramondt, A. S., space model of the periodic system of the elements, A., 1110.
- Ramsauer, C., effective cross-sectional area of gas molecules towards low-velocity ions of the alkali metals, A., 222.
- Ramsauer, C., and Beeck, O., effective cross-section of gas molecules in the presence of alkali ions of 1–30 volts velocity, A., 1311.
- Ramsauer, G. See Grotrian, W.
- Ramsay, A. A., Brown, A. M., and Randell, H. H., green colour in butter, B., 66.
- Ramsden, J. V., measurement of particle size in ground powders, B., 175.
- Ramsey, E. R. See Dorr Co.
- Ramsey, J. B. See Kirschman, H. D.
- Ramsperger, H. C., photochemical decomposition of azomethane, A., 254.
- thermal and photochemical decomposition of azo-compounds, and the problem of reaction rates, A., 255.
- decomposition of azoisopropane; a homogeneous unimolecular reaction, A., 484.
- Ramsperger, H. C., and Melvin, E. H., preparation of large single crystals, A., 351.
- Ramsperger, H. C. See also Gibson, G. E., and Rice, O. K.
- Randall, M., and Cann, (Miss) J. Y., micelles and the activity coefficient in alkali silicate solutions, A., 365.
- Randall, M., and Chang, K. S., solubility of thallos chloride in water and aqueous solutions of magnesium sulphate and lanthanum nitrate at 25°, A., 830.
- Randall, M., and Failey, C. F., activity of weak acids in aqueous sulphate solutions, A., 18.
- activity coefficients of non-electrolytes in aqueous salt solutions from solubility measurements; salting-out order of the ions, A., 590.
- activity coefficients of gases in aqueous salt solutions, A., 590.
- activity coefficients of the undissociated part of weak electrolytes, A., 591.
- Randall, M., and Sosnick, B., gaseous solutions, A., 588.
- Randall, M., and Spencer, H. M., solubility of lead monoxide and basic lead carbonate in alkaline solutions, A., 841.
- Randall, M., and Vietti, W. V. A., solubility of lead bromide in aqueous salt solutions and the calculation of the activity coefficient from solubility measurements, A., 841.
- Randall, M., and Young, (Miss) L. E., calomel and silver chloride electrodes in acid and neutral solutions; activity coefficient of aqueous hydrochloric acid and the single potential of the 0.1M-calomel electrode, A., 596.
- Randell, H. H. See Ramsay, A. A.
- Randles, F. S., and Knudson, A., cholesterol. III. Relation of the adrenal gland and the spleen to cholesterol metabolism, A., 323.
- Randoin, (Mme.) L., comparative influence of fats and sugar in the course of avitaminosis-B, A., 926.
- Randoin, (Mme.) L., André, E., and Lecoq, R., comparative antirachitic value of various marine animal oils and of cod liver oil, B., 530.
- Randoin, (Mme.) L., and Fabre, R., glutathione and avitaminosis-B in the pigeon, A., 206.
- Randoin, (Mme.) L., and Lecoq, R., influence of the nature of nutritive carbohydrates on the production of acute polynuritic conditions, recurrent or chronic, obtained in spite of the presence of yeast or yeast extracts, A., 92.
- effect of diastase on polynuritis developed on diets rich in starch, A., 332.
- biological assay of antirachitic lipoids tested by a new rachitogenic régime on rats, A., 556.
- water-soluble vitamins of group B; probable existence of a thermostable and alkali-stable factor essential to life, A., 925.
- Randoin, (Mme.) L., and Michaux, (Mlle.) A., comparative variations in the content of water, fatty acids, and cholesterol in the liver and spleen of guinea-pigs on a normal diet and on one deprived of antiscorbutic vitamin, A., 1059.
- Randoin, (Mme.) L., and Simonnet, H., hormones and vitamins; new definitions of vitamins, A., 1058.
- Randolph, E. E., deodorising menhaden fish oil, B., 99.
- Rane, M. B., effect of addition of some alkaloids on the rate of dissolution of iron in dilute hydrochloric acid. II. Effect of nicotine, narcotine, and gelatin, and the fall of E.M.F. produced in the iron in presence of brucine, A., 27.
- Ranedo, J., and Léon, A., isomeric derivatives of α - and β -naphthoic acids obtained by catalytic hydrogenation, A., 173.
- Rang, K. H., [oil from] corolla of *Monarda fistulosa*, L., A., 999.
- Ranganathan, S., and Norris, R. V., nitrogen fixation by *Azotobacter chroococcum*, A., 330.
- Ranganathan, S. See also Fowler, G. J.
- Ranganathan, S., jun., carbohydrate changes during ripening of plantains, B., 796.
- Ranger, R. H. See Marconi's Wireless Telegraph Co., Ltd.
- Rangier, condensations of glycerol, A., 989.
- Ranis, L. See Berl, E.
- Ranken, C., and Bell, J. R., surface of yeast as a factor in fermentation, B., 461.
- Rankin, E. J. See Tottingham, W. E.
- Rankow, G., apparatus for the automatic recording of numbers of extractions in the quantitative analysis of fats and the like with the Soxhlet apparatus, B., 200.
- Ransohoff, F., and Fleischmann Co., treatment of molasses [for use in manufacture of yeast], (P.), B., 941.
- Ranson, S. W. See Davenport, H. A.
- Rao, A. S. See Rao, K. R.
- Rao, B. S., and Shintre, V. P., colouring matter present in the rhizomes of *Curcuma aromatica*, Salisb., B., 293.
- Rao, B. S., Shintre, V. P., and Simonsen, J. L., constituents of Indian essential oils. XXIII. Essential oil from fruits of *Piper cubeba*, Linn., B., 316.
- constituents of Indian essential oils. XXIV. Essential oil from rhizomes of *Curcuma zedoaria*, Roscoe, B., 799.
- Rao, B. S., and Simonsen, J. L., constituents of Indian essential oils. XXV. ι - α - and ι - β -Curcumenes, A., 1253.
- Rao, B. S. See also Pillay, P. P.
- Rao, D. A. R. See Norris, R. V.
- Rao, I. R., optical anisotropy of atoms and molecules, A., 1077.
- Raman effect in crystals, A., 1306.
- Rao, K. R., and Narayan, A. L., series in the spark spectra of germanium, A., 929.
- Rao, K. R., Narayan, A. L., and Rao, A. S., series spectra of Hg-like atoms: Tl II and Pb III, A., 1067.
- series spectra of Sn IV and In III, A., 1007.
- Rao, S. R., light-scattering in liquids at high temperatures, A., 348.
- effect of molecular form and association on light scattering in liquids. I. Fatty acids and alcohols. II. Some aromatics, A., 1311.
- Rao, S. V. R., and Watson, H. E., phototropic compounds of mercury, A., 1197.
- Rao, T. V. M., bauxite, A., 611.
- Raper, H. S., and Wayne, E. J., oxidation of phenyl-fatty acids in the animal organism, A., 324.
- Raper, H. S. See also Pugh, C. E. M.

- Rapin, G., direct electrolytic preparation of potassium permanganate, A., 969.
- Rapkin, L., reduction potential and oxidation, A., 1097.
- Rapp, and Lechler, R., jun., production of ergot extract, B., 172.
- Rappaport, F. See Silberstein, F.
- Raquet, D., determination of chloride in blood-serum, A., 786.
- Raquet, D., and Kerlevo, A., determination of chlorides in milk, B., 208.
- Raquet, D., and Paget, M., determination of total chloride and loosely combined chloride in gastric juice, A., 788.
- Răscanu, R., removal of oil from condenser water, B., 550.
- Rasche, W., elimination of iodine in milk, A., 195.
- Rashevsky, E. von. See Rashevsky, N. von.
- Rashevsky, N. von, size-distribution of colloidal particles, A., 360.
- theory of the spontaneous division of drops of microscopic size, A., 474, 690.
- Rashevsky, N. von, and Rashevsky, E. von, distribution of particle size in reversible polydispersed systems, A., 474.
- Raschig, F., production of 6-chlorothymol, (P.), B., 36.
- recovery of phenol from waste water containing ammonia, (P.), B., 396.
- paving materials, (P.), B., 524.
- catalytic oxidation of ammonia, B., 669.
- Raschig, F., and Prahl, W., constitution of the hydrogen sulphite compounds of aldehydes and ketones, A., 273.
- Raschka, V. See Müller, Robert.
- Rasenkow, I. P., effect of acidity and boiling on enterokinase, A., 1055.
- parallelism in behaviour of the pancreatic secretin and of enterokinase at the b. p., A., 1287.
- influence of boiling on pancreatic secretin, A., 1287.
- Rasetti, F., intensity of the lines in the principal series of potassium, A., 338.
- statistical derivation of the *M*-terms of the X-ray spectrum, A., 939.
- wave mechanics of an alkali metal atom in an electric field, A., 1303.
- calculation of *M*-terms from the statistical atomic potential, A., 1303.
- wave mechanics of alkali metal atoms in an electric field, A., 1303.
- Rask, E. N., and Howell, W. H., photodynamic action of hæmatoporphyrin, A., 670.
- Rask, O. R. See McCollum, E. V.
- Raspopova, N. See Zavadovski, B.
- Rasquin, H., determination of specific gravity of powders, B., 429.
- Rassers, J. R. F., secretion of hydrochloric acid into the stomach, A., 1393.
- Rassers, J. R. F. See also Pohlmann, J.
- Ratcliffe, J. W., and Cotton, Ltd., E., sifting machines for treating potters' slip, powdered substances, etc., (P.), B., 817.
- Ratelade, J., and Tschetvergov, M., adsorption phenomena, A., 1318.
- Rath, E. See Braun, J. von.
- Rath, E. J., wetting-out agents and other auxiliary products used in dyeing and calico printing, B., 259.
- azoic [naphthol AS] colours, B., 638.
- Rath, L. See Fedar, E.
- Rathery, F., Kourilsky, R., and Laurent, (Mlle.) Y., insulin, folliculin, and glycemia in normal dogs, A., 1058.
- Rathsburg, H., cerium salts in quantitative analysis; determination of antimony in presence of arsenic, A., 1207.
- Ratignier, M., apparatus for printing fabrics in several colours, (P.), B., 522.
- Ratterman, L. B. See Iserman, S.
- Rauch, W., and Sandreuter, H., tinning of [metal] containers, (P.), B., 575.
- Rauchalles, G. See Waldschmidt-Leitz, E.
- Raudenbusch, W. See Grimm, H. G.
- Raudnitz, H., 3:3':5:5'-tetranitro-2:2'-dimethoxydiphenyl, A., 285.
- Raun, P. H., and Frederick Iron & Steel Co., classifying or separating machine, (P.), B., 40.
- Raydin, I. S., and Morrison, M. E., plasma chlorides in obstructive jaundice, A., 1395.
- Ravikovitch, A. See Petrenko-Kritschenko, P.
- Ravitsch, M. See Danilitschenko, P. T.
- Ravner, O. See Halvorsen, B. F.
- Raw, G., separation of solid materials of different sp. gr., (P.), B., 878.
- Rawdon, H. S., and Berglund, T., microstructure of ferrite, A., 939.
- Rawitzer, W., spontaneous and linear crystallisation velocity in binary mixtures, A., 1195.
- Rawitzer, W. See also Freundlich, H.
- Rawling, F. G., pulping of wood, (P.), B., 638, 743.
- production of acetic acid [from wood], (P.), B., 886.
- Rawlins, F. I. G., cohesion in the crystalline state, A., 8.
- is the molecule of gaseous hydrogen chloride polar or non-polar? A., 1077.
- Rawolle, F. C., decolorising, treating, and dissolving shellac for bleaching purposes, (P.), B., 132.
- Ray, A. B., and Carbide & Carbon Chemicals Corporation, bonding of activated carbon, (P.), B., 292*.
- Ray, A. C., and Dutt, S., aluminium powder as a synthetic reagent, A., 630.
- Ray, B. B., secondary absorption edges in X-rays, A., 1296.
- Ray, C., epidemic dropsy: its blood picture, A., 196.
- Ray, F. E., synthesis of α - γ -trimethylglutaric acid, A., 394.
- Ray, G. B., oxidation of sodium lactate by red blood cells, A., 910.
- Rây, J. N., synthesis of oxypalmatine; dehydronoroxy- ψ -corydaline, A., 188.
- Rây, J. N. See also De, A. K., Perkin, W. H., jun., and Roy, R. M.
- Ray, K. W., and Mathers, F. C., effect of temperature and time of burning on the properties of high-calcium lime, B., 405.
- colloidal behaviour of lime, B., 448.
- Rây, N. See Rây, P. C.
- Rây, P., co-ordination and atomic structure, A., 461, 1311.
- Rây, P., and Chattopadhyaya, A. K., action of hexamethylenetetramine on solutions of salts of metals of the third group, and quantitative separation of iron from manganese, zinc, nickel, and cobalt, A., 387.
- Rây, P., and Das-Gupta, J., volumetric determination of mercuric oxide, A., 1206.
- Rây, P., and Goswami, B. K., compounds of hydrazine with metallic sulphites and nitrites, A., 258.
- Rây, (Sir) P. C., Bose-Rây, K. C., and Adhikari, N. B., varying valency of platinum with respect to mercaptanic radicals. VI, A., 44.
- Rây, (Sir) P. C., Bose-Rây, K. C., and Ray-Chaudhury, S., varying valency of platinum with respect to mercaptanic radicals. VII, A., 751.
- Rây, (Sir) P. C., and Rây, N., double sulphates of the copper-magnesium group and the sulphonium bases. II, A., 505.
- Rây, P. R., thiosulphatocobalt complexes. II. Potassium thiosulphatocobaltipentacyanide, A., 35.
- Ray, R., British coking industry and some of its products, B., 436.
- Ray, S., fine-structure constant as a numerical constant, A., 209.
- structure of oil and mercury drops examined by Millikan and Mattauch, A., 474.
- a physical factor in the Liesegang phenomenon, A., 587.
- colloidal theory of surface tension, A., 702.
- photophoresis in liquids, A., 706.
- Ray-Chaudhury, S. K. See De, S. C., Guha, P. C., and Rây, (Sir) P. C.
- Raybestos Co., hardening of binder materials; [manufacture of brake linings, etc.], (P.), B., 589.
- Rayleigh, (Lord), line spectrum of mercury in absorption; occurrence of the forbidden line $2270\text{ }^1\text{S}_0-1^3\text{P}_2$, A., 100.
- band spectra of mercury, A., 806.
- fluorescence of mercury vapour under low excitation, A., 935, 1308.
- colour of the peacock's "eye," A., 1047.
- action of light on celluloid stained with malachite-green, A., 1341.
- Raymond, A. L., relation of co-enzyme to phosphatase activity, A., 1402.
- Raymond, A. L., and Blanco, J. G., blood-sugar determination and separation of sugars with yeast, A., 1392.
- Raymond, A. L., and Levene, P. A., hexosephosphates and alcoholic fermentation, A., 1402.
- Raymond, L. R., determination of zinc in presence of large percentages of arsenic, B., 675.
- Raymond, L. W. See Kirkham, V. H.
- Raymond-Hamet, identity of yohimbine and quebrachine, A., 1030.
- Rayner, A., and Campbell, S. G., composition of fatty acids of palm oil, B., 454.
- Razubaiev, G., condensations of hydroxy- and keto-acids; β - and γ -hydroxy- or -keto-acids and acids with a tertiary hydroxyl group, A., 617.

- Razubaiev, G., effect of hydrogen at high pressures and temperatures on solutions of substituted hydroxysuccinic acids in the presence of alumina and nickel oxide as catalysts, A., 738.
- condensation of hydroxy- and ketonic acids: β -, γ -, and *tert*-hydroxy-acids, A., 1355.
- Razubaiev, G. See also Ipatiev, V. N.
- Rea, A. See Mattingley, N. B.
- Rea, M. W., and Small, V., hydrogen-ion concentration of plant tissues. V. *Vicia faba*, A., 92.
- Read, A. M., pulverising machine, (P.), B., 801.
- Read, B. E., Chinese alchemy, A., 40.
- relative toxicity of halogen derivatives of chaulmoogra, A., 88.
- Read, B. E. See also Feng, C. T.
- Read, C. L., elimination of antimony in the refining of arsenic trioxide, B., 156.
- Read, C. L., and American Smelting & Refining Co., refining of crude arsenic trioxide, (P.), B., 857.
- Read, C. L., O'Harra, B. M., and American Smelting & Refining Co., purification of sodium stannate solution, (P.), B., 815.
- Read, C. L. See also Rose, C. A.
- Read, F. F., identification of crystals, (P.), B., 432.
- Read, G. E., reflexion of positive rays by a platinum surface, A., 568.
- Read, H. R., production of fertilisers from waste nitrogenous material, (P.), B., 651.
- Read, J., and Reid, W. G., optical resolution of *dl*- α -isopropyl-glutaric acid, A., 155.
- action of bromine water on certain olefinic acids, A., 505.
- action of bromine water on certain olefinic hydrocarbons and ethers, A., 866.
- Read, J. B., Coolbaugh, M. F., and Complex Ores Recoveries Co., roasting [of sulphide ores], (P.), B., 127.
- Read, J. B. See also Coolbaugh, M. F.
- Read, R. R., [preparation of] β -hydroxypropionic acid, A., 394.
- Read, R. R., Lathrop, H., and Chandler, H. L., odour and structure of certain cyclic acetals [alkylidene ethers], A., 299.
- Read, R. R., and Mullen, D. B., derivatives of *n*-butylbenzene, A., 995.
- Read, W. C., and Electro Metallurgical Co., electrolytic rectifier, (P.), B., 864.
- Reader, R. C. See Genders, R.
- Reader, V., relation of the growth of certain micro-organisms to the composition of the medium. III. Effect of the addition of growth-promoting substances to the synthetic medium on the growth of *Streptothrix corallinus*, A., 552.
- Reader, V. See also Kinnersley, H. W., Orr-Ewing, J., and Peters, R. A.
- Reavell, J. A., separation of solids or semi-solids from liquids by drying or concentrating, (P.), B., 40.
- dehydration and kindred treatment [selective adsorption] of gases, combustion products, vapours, etc., (P.), B., 75.
- Rebbeck, J. W. See Ferguson, J. B., and Mulligan, M. J.
- Reber, J. W. See Woodall-Duckham (1920), Ltd.
- Reber, K., detection of β -naphthol, A., 751.
- Rebmann, L. See Pummerer, R.
- Rebner, W. See Neelmeier, W.
- Rebuffat, O., composition of alite, B., 299.
- Recht, S. See Tangl, A.
- Reckitt & Sons, Ltd., and Hall, E. H., rotary drum and vacuum filters, (P.), B., 431.
- Reclaire, A., and Spoelstra, D. B., determination of total geraniol content of citronella oil, B., 426.
- Reclaire, A. See also De Kroes, A.
- Record Cement-Ind. G.m.b.H. See Tetens, O.
- Recoura, A., acetylated sulphates of sesquioxides, A., 45.
- Récsei, A., quinonoid and quinolide structure, A., 59.
- preparation of isopropyl iodide, A., 152.
- preparation of isobutyl chloride, A., 272.
- Redfield, A. C., Coolidge, T., and Montgomery, H., respiratory proteins of blood. II. Combining ratio of oxygen and copper in bloods containing haemocyanin, A., 314.
- Redfield, A. C., Coolidge, T., and Shotts, M. A., respiratory proteins of blood. I. Copper content and minimum mol. wt. of haemocyanin of *Limulus polyphemus*, A., 314.
- Redfield, A. C., and Mason, E. D., respiratory proteins of the blood. III. Acid-combining capacity and dibasic amino-acid content of haemocyanin of *Limulus polyphemus*, A., 785.
- Redfield, C. L. See Mathison, F. C.
- Redlich, O., derivation of the phase rule, A., 1191.
- method of conductivity determination, A., 1192.
- nomographic conversion of percentages by weight into atomic percentages in ternary systems, A., 1209.
- Redlich, O. See also Abel, E.
- Redlich, V., centrifugal machine, (P.), B., 321*.
- Redman, T., hydrogen-ion concentration of faeces of rachitic children, A., 322.
- Reed, A. C., Cotter, T., and Lasier, E. L., manufacture of a vanadium compound [from products of combustion of petroleum], (P.), B., 157.
- Reed, C. I., state of plasma-calcium in parathyroidectomised dogs, A., 791.
- Reed, C. I., Lackey, R. W., and Payte, J. I., parathyroidectomised dogs; blood-mineral changes in tetany, A., 667.
- Reed, H. C. See Frey, R. W.
- Reed, J. O., and United States, steam turpentine still, (P.), B., 457.
- Reed, L. See Denis, W.
- Reed, R. D., and Withrow, J. R., zirconium sulphate as a reagent for the detection of potassium, A., 858.
- Reed Air Filter Co., and Hegan, C. P., method and apparatus for filtering air, (P.), B., 658.
- Reerink, E. H., recovery of pure platinum, A., 856.
- Reerink, E. H. See also Wijk, A. van.
- Rees, O. W., and Elder, A. L., effect of certain Illinois waters on lead, B., 694.
- Rees, R. L., colorimeter, (P.), B., 554.
- Rees, S. H., properties of cold-drawn and of heat-treated steel wire, B., 753.
- Rees, W. van, treatment of ores, etc., (P.), B., 757.
- Rees, W. J. See Hugill, W.
- Reeve, H. T., and Western Electric Co., Inc., formation of refractory crucibles, (P.), B., 125.
- Refiners, Ltd. See Cox, K.
- Regenerative Coal Gasification System, Ltd., and Travers, M. W., apparatus for enriching with oil the gas obtained by the complete gasification of carbonaceous fuel, (P.), B., 594.
- Regenerative Coal Gasification System, Ltd. See also Travers, M. W.
- Reginelli, C. See Mutti, I.
- Regnac-Paille, G., melting furnaces for liquid fuel, (P.), B., 820.
- Rehorst, K., hydroxy-acids of the sugar group. I. *d*-Saccharic and *d*-gluconic acids, A., 272.
- Reibnitz, von, determination of wood oil in oil paints, B., 936.
- Reiboldt, K. von, preparation of water-glass [sodium silicate], B., 448.
- Reich, V. See Haitinger, M.
- Reich, W. See Hess, K.
- Reichard, F. See Frankfurter Gas Ges.
- Reichardt, G. See Heller, G.
- Reichardt, H. See Bonhoeffer, K. F.
- Reichel, J., production of killed hog cholera virus, (P.), B., 502.
- Reichert, F., isolation of the physiologically active principles contained in the leaves of the ombu (*Phytolacca dioica*), A., 208.
- Reichhelm, G. L. See Gasifier Co.
- Reichinstein, D., theory of static and dynamic displacement. II., A., 132.
- specific adsorption volume and the electromotively effective space, A., 135.
- Reid, A., diffraction of cathode rays by thin celluloid films, A., 938.
- Reid, B. M., and Burton, E. F., temperature of coagulation of pure copper colloidal solution, A., 476.
- Reid, E. E., Burke, C. E., and Du Pont de Nemours & Co., E. I., production of acids [by oxidation of hydrocarbon oils], (P.), B., 514.
- oxidation of hydrocarbon oils, (P.), B., 513.
- Reid, E. E. See also Berry, T. M., Cline, E. L., Copenhagen, J. E., and Dunning, F.
- Reid, E. W., and Hofmann, H. E., "cellosolve" [ethylene glycol monoethyl ether] and its derivatives in nitrocellulose lacquers, B., 492.
- Reid, E. W. See also Davidson, J. G., and Hofmann, H. E.
- Reid, H. S., and Canadian Electro Products Co., Ltd., [motor] fuel, (P.), B., 739*.
- Reid, H. S., Hovey, W. C., and Canadian Electro Products Co., Ltd., manufacture of acetaldehyde, (P.), B., 847*.
- Reid, J., and Seutan Co., proofed paper, (P.), B., 444.
- Reid, W. G. See Read, J.
- Reif, G., detection of isopropyl alcohol in still wine by means of piperonal, B., 686.

- Reifenberg, A., silicio acid as a protective colloid in the origin of Mediterranean red soils, A., 267.
- Reifenberg, A. See also Fodor, A.
- Reihlen, H., Friedolsheim, A. von, and Oswald, W., nitric oxide and carbon monoxide compounds of so-called univalent iron and nickel, A., 1114.
- Reilbnd Research & Development Co., Inc., production of electrodes emitting electrons at a relatively low temperature, (P.), B., 900.
- Reilly, G. See Miles, E. H.
- Reilly, J., and Boyle, C., production of essential oils from Irish-grown plants. II. Cultivation of *Mentha piperita*, and further experiments on the winning of lavender oil, B., 68.
- Reilly, J., and Drumm, P. J., substituted diaryl ethers. II. Friedel-Crafts reaction applied to di-*p*-tolyl ether, A., 63. production of essential oils from Irish-grown plants. IV. Oil of camomile, B., 69. determination of carvone in dill oil, B., 426.
- Reilly, J., Drumm, P. J., and O'Sullivan, (Miss) K., higher alkyl derivatives of toluene-*p*-sulphonyl- β -naphthylamine; 2-*n*-butyl-2-toluene-*p*-sulphonyl-1:2-naphthylenediamine, A., 164.
- Reilly, J., and Moore, J. J., derivatives of benzyl-*p*-phenylenediamine, A., 629.
- Reilly, J., Moore, J. J. and Drumm, P. J., nitration of benzyl-aniline, A., 514.
- Reilly, J., and Taylor, John, production of essential oils from Irish-grown plants. III. Oil of peppermint, B., 68.
- Reilly, J. See also Donnelly, J. T., and Fringsheim, H.
- Reilly, J. A., and Nieuwland, J. A., action of acetylene on aryl-hydrocarbons in presence of a mercury catalyst. II., A., 1233.
- Reimann, A. See Benckiser, T.
- Reimann, A., jun. See Benckiser, T.
- Reimer, M., and Howard, M., dibromides of methylcoumaric and methylcoumarinic acids, A., 288. addition reactions of unsaturated α -ketonic acids. II., A., 1242.
- Rein, H. See Hess, K.
- Reinartz, L. F., Nead, J. H., and American Rolling Mill Co., manufacture of commercially pure iron alloys, (P.), B., 372.
- Reinhold, H., preparation of a medium for the treatment of water [germicide], (P.), B., 70.
- Reindel, F., and Walter, E., yeast ergosterol. II., A., 295.
- Reinders, W., composition of water-gas at low temperatures, B., 5.
- Reinders, W., and Klinkenberg, A., ternary system strontium oxide-sucrose-water, A., 1095.
- Reiner, L., serum-globulin, A., 192. electro dialysis or electro-osmosis; physicochemical characteristics of normal and pathologically altered blood-serum, A., 543.
- Reiner, L., and Kopp, H., isolation and determination of serum-globulin by means of electro dialysis, A., 1391.
- Reiner, M., and Rivlin, R., hydrodynamics of systems of variable viscosity. II. Streaming in the capillary, A., 235.
- Reiner, S., method of heating extraction apparatus, A., 986. distribution of filters in rubber mixing, B., 341. absorption of vapours by rubber, B., 903.
- Reinert, M., excretion of barbituric acid derivatives in the urine of the dog, A., 670.
- Reinhardt, B., production of technically pure alkali hydro-sulphides, (P.), B., 814.
- Reinhold, H., solid cells, particularly thermoelectric cells with solid electrolytes, A., 846.
- Reinhold, J. G. See Meeker, G. H.
- Reinhold, O. See Klinar, H.
- Reinicke, H., action of light on acetylene, A., 1340.
- Reinkober, O., and Kipcke, H., variation of the absorption coefficients of fluoride and quartz with temperature in the short-wave infra-red, A., 571.
- Reinkober, O. See also Krüger, F.
- Reinwein, H., and Singer, W., tissue respiration. IV. Influence of thyroxine, adrenaline, and insulin on the oxygen consumption of surviving liver-cells, A., 1287.
- Reinwein, H. See also Müller, Helmut.
- Reis, A., electrolytic conduction of solids, A., 823. structure of triclinic-pinacoidal crystals and racemate formation, A., 1177.
- Reis, A. See also Gerstäcker, A.
- Reis, L. von. See Naamlooze Vennootschap Mij. tot Beheer en Exploit. van Oetroom.
- Reiser, A. S., quality of refined sugar, B., 541.
- Reiss, P. See Vlés, F.
- Reissert, A. [with Düsterdiek, H.], benzisothiazolone, A., 1264.
- Reissert, A., and Manus, E., amides of thio- and dithio-salicylic acid, A., 883.
- Reissmann, W. See Reiter, H.
- Reiter, H., and Reissmann, W., lipins and metabolism, A., 1154.
- Reitlinger, K., and Klee, P., biological activity of the porphyrins, A., 443.
- Reitsstötter, J. See Bergl, K., I. G. Farbenind. A.-G., and Lasch, G.
- Reitz, K., determination of "total fatty matter" in sulphonated oils, B., 902.
- Rekling, E., photo-activity of oils and their antirachitic power, A., 557.
- Remesov, I., vacuum resistance vessel for conductivity measurements and conductometric analyses, A., 729.
- Remesov, I. See also Kleinmann, H.
- Remick, W. L., leaching apparatus, (P.), B., 696. treatment of solid-bearing liquids, (P.), B., 697.
- Remington Arms Co., explosive priming mixture, (P.), B., 318.
- Remy, E., effect of sterilisation on the antiscorbutic vitamin, B., 834.
- Remy, H., [chlorides of ruthenium], A., 1345.
- Remy, H., and Lührs, A., ruthenium chlorides, A., 722.
- Remy, H., and Pellens, L., chloro-complex salts of bismuth, A., 605.
- Remy, H., and Wagner, T., platinum metals. VII. Reduction of ruthenium trichloride by sodium amalgam and by alcohol, A., 142. [bivalent ruthenium], A., 261.
- Remy, W. See Roitzheim, A.
- Remy-Stahlwerke Stahlschmidt & Co., G.m.b.H., alloy steel, (P.), B., 488.
- Renaudie. See Mailhe, A.
- Renfren, A. G. See Johnson, T. B.
- Renker, M., manufacture of tracing cloth, (P.), B., 889.
- Renn, H. V. E. M. See British Hartford-Fairmont Synd., Ltd.
- Rennerfelt, I., electric furnace, (P.), B., 339*.
- Renou, F. G., and Australian Bituminous Compounds, Ltd., asphalt or bitumen substitute, (P.), B., 126.
- Renshaw, A. See British Dyestuffs Corp., Ltd., and Dyson, G. M.
- Rente, A. M. See Baker, E. M., and Carr, A. R.
- Rentschler, H. C., Marden, J. W., and Westinghouse Lamp Co., preparation of uranium in a coherent mass, (P.), B., 20.
- Rentschler, H. C., and Westinghouse Lamp Co., electron device and method of activation, (P.), B., 529.
- Rentschler, M. J., Jeavons, W. R., and Jeavons, A. N., manufacture of refractories, (P.), B., 193.
- Renwick, F. F., and Du Pont-Pathé Film Manufacturing Corporation, photographic film, (P.), B., 769.
- Repetto, G. See Sanna, A.
- Reppman, A. See Strunk, E.
- Republic Flow Meters Co., gas-analysis apparatus, (P.), B., 508.
- Resnic, A. See Ballif, L.
- Resnitschenko, M. S., multiphase action of potassium cyanide on the living cell, A., 200.
- Restaino, S. See Zambonini, F.
- Rethwisch, F. See Jensen, H.
- Retter, W. See Hein, F.
- Retter, L. F. See Weyer, E. R.
- Retze, E. von, and Holzverkohlungs-Ind. Aktien-Gesellschaft, production of concentrated acetic acid, (P.), B., 45.
- Retzov, U., iron-containing rings of smaller effective permeability, A., 1081.
- Reuss, A. See Lehmann, P.
- Reuss, W., welding medium for aluminium, (P.), B., 610, 821*.
- Reverdin, F., [preparation of] 3:5-dinitroanisole, A., 408.
- Revere Rubber Co. See Hopkinson, E.
- Rewald, B., phosphatide content of organs after administration of large amounts of phosphatide, A., 1154. danger to health of antimonial enamels, B., 524.
- "Rex" Mineralölgas. Stephan, Book, & Ziegler, preparation of lubricating oils, (P.), B., 116. production from coal tar of neutral lubricating oil free from salts, stable in the air, and capable of admixture with mineral oils, (P.), B., 396.
- Rey, A., coating of tiles, sheets, etc. of iron or ferrous metals, (P.), B., 489.
- Rey, G. See Meunier, L.
- Reychler, A., silver xanthate, A., 739.
- Reychler, A., silver xanthate, A., 739. photochemical studies. X. Photographic fog, B., 285.

- Reyerson, L. H., and Swearingen, L. E., catalytic activity of metallised silica gels. IV. Oxidation of methane, A., 376.
- Reyerson, L. H. See also Morris, V. N., and Swearingen, L. E.
- Reynard, O., and Tapping, F. F., binding materials for agglomerating finely-divided fuels or other pulverulent matter; briquetting finely-divided coal, fuel, or other pulverulent materials, (P.), B., 662.
- Reynard, O. See also Thornley, F. C.
- Reynolds, C. V. See Brady, O. L.
- Reynolds, D. A. See Davis, J. D., and Smith, D. F.
- Reynolds, D. S., Ross, W. H., and Jacob, K. D., volatilisation method for the determination of fluorine, with special reference to the analysis of phosphate rock, B., 538.
- Reynolds, D. S. See also Jacob, K. D.
- Reynolds, H. F. See Smith, F. E.
- Reynolds, J. H., distribution of ionised oxygen in the gaseous nebulae, A., 210.
- Reynolds, J. J., food product, (P.), B., 106.
- Reznikoff, P., cell physiology. V. Antagonism of cations in their actions on the protoplasm of *Amoeba dubia*, A., 327.
- Reznikoff, P. See also Cohen, B.
- Rhamy, B. W., and Adams, P. H., standard for the van den Bergh test, A., 1048.
- Rheinboldt, H., and Dewald, M., reactions of nitrosyl chloride, A., 397.
- Rheinboldt, H., and Kirberg, R., reduction of azobenzene by Grignard reagents, A., 283.
- Rheinboldt, H., and Schmitz-Dumont, O., nitrosyl chloride and ketones, A., 274.
- Rheinische Gummi- & Celluloid-Fabr., treatment of celluloid scrap, (P.), B., 364.
- Rheinische Kampfer-Fabrik G.m.b.H., production of inactive menthol (racemate of natural menthol), (P.), B., 547, 691, 873.
- Rheinische Kampfer-Fabrik G.m.b.H. See also Schöllkopf, K.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., manufacture of fertilisers, (P.), B., 169.
- recovery of alumina and phosphates from aluminium phosphates, (P.), B., 191.
- roasting of used or waste gas-purifying substances, (P.), B., 219.
- dissociation of zirconium ores, (P.), B., 337.
- decomposition of zirconium ores, (P.), B., 366.
- production of mixed manures, (P.), B., 907.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., and Brenek, H., manufacture of chemical manures, (P.), B., 280.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., Fritzweiler, H., Grob, W., and Stuer, C. B., process of chlorination employing contact material having large surface, (P.), B., 8.
- recovery of gases and vapours from coke-oven gas, (P.), B., 115.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., Rothe, F., and Brenek, H., utilisation of barium and strontium sulphates, (P.), B., 51.
- production of sulphur dioxide and magnesium compounds from magnesium sulphate, (P.), B., 191.
- production of calcined phosphates, (P.), B., 747.
- treatment of barium and strontium sulphates, (P.), B., 815.
- production of barium ortho- or tri-silicate, (P.), B., 893.
- treatment of gypsum, (P.), B., 896.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., Rüsberg, F., and Föhrenbach, E., precipitation of barium chloride from solution, (P.), B., 747.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., and Thelen, K., manufacture of barium carbonate, (P.), B., 815.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges. See also Marwedel, J. E., and Rüsberg, F.
- Rhenania Verein Chemische Fabriken Akt.-Ges. See Rothe, F.
- Rhine, J. E., oxidation of certain fatty acids, A., 153.
- Rhoades, W., and Rhoades Shale Oil Co., extraction of oil from shale, (P.), B., 470.
- Rhoades Shale Oil Co. See Rhoades, W.
- Rhoads, T. H., and Proctor & Schwartz, Inc., drying ceramic ware and apparatus therefor, (P.), B., 928.
- Rhodes, F. H., Gardner, F. T., and Lewis, A. W., analysis of mixtures of similar organic compounds, B., 151.
- Rhodes, F. H. See also Briggs, T. R.
- Ri, T. See Horiba, S.
- Riabouschinski, N. P., is there a proportionality between the performance of work and the lactic acid, phosphorus, and sugar contents of blood? A., 442.
- Riad, A., determination of carbon dioxide in carbonates in soil, B., 796.
- Ribas, I., reaction between magnesium compounds and ethylene oxides. I., A., 753.
- Ribas, I. See also Fournau, E.
- Ricard, E., Guinot, H., and Société Ricard, Allenet & Cie, dehydration of alcohol for carburants, (P.), B., 252*.
- Ricard, E., and Société Anonyme des Distilleries des Deux-Sèvres, continuous dehydration of volatile fatty acids, (P.), B., 398*.
- Ricca, V. See Tière, L.
- Riccardi, G. See Oliveri-Mandalà, E.
- Rice, E. W., calculation of purity factors for dry lead deffecation at 20°, B., 382.
- Rice, E. W., and Murray, G. W., jun., factors influencing char filtration [of sugar solutions]. II., B., 460.
- Rice, F. O., and Getz, (Miss) D., thermal decomposition of nitrogen pentoxide, A., 248.
- Rice, F. O., Urey, H. C., and Washburne, R. N., mechanism of homogeneous gas reactions. I. Effect of black-body radiation on a molecular beam of nitrogen pentoxide, A., 1193.
- Rice, G. E., and Conservation Corporation of America, treating, impregnating, seasoning, and stabilising wood, (P.), B., 158.
- Rice, G. P., 5-bromo-2:4-dimethoxybenzoylacrylic acid and its esters, A., 290, 756.
- Rice, J. C., regulation of flow of carbon dioxide through a combustion train, A., 863.
- Rice, J. H., drying apparatus, (P.), B., 552.
- Rice, O. K., quantum theory of quasi-unimolecular gas reactions, A., 483.
- surface tension and the structure of the surface of aqueous, ammonia solutions, A., 582.
- theory of the decomposition of methane, A., 589.
- application of the Fermi statistics to the distribution of electrons under fields in metals and the theory of electrocapillarity, A., 811.
- energy distribution of complex molecules, A., 937.
- Rice, O. K., and Ramsperger, H. C., theories of unimolecular gas reactions at low pressures. II., A., 484.
- Rice, W. G. See Sweet, A. T.
- Rich, M. N., and Westinghouse Lamp Co., [treatment of] refractory metal filaments, (P.), B., 339.
- Rich, M. N. See also Marden, J. W.
- Rich Tool Co. See Jardine, R.
- Richard, P. A. See Soc. du Film en Couleurs Keller-Dorian.
- Richards, A. N., and Collison, L. W., apparatus for the continuous recording of the oxygen consumption of small animals, A., 1389.
- Richards, C. A. See Hawley, L. F.
- Richards, C. W. See Adams, F. W.
- Richards, O. W., growth of the yeast *Saccharomyces cerevisiae*. I. The growth curve and the effect of temperature on the yeast growth, A., 446.
- potentially unlimited multiplication of yeast with constant environment, and the limiting of growth by changing environment, A., 797.
- Richards, T. G., Smith, G. P. F., and Dispersions Process, Inc., reclaiming and dispersing vulcanised rubber, (P.), B., 616.
- Richards, T. W., incidence of chemical attraction on cohesion, A., 112.
- chemical affinity, cohesion, compressibility, and atomic volume; effects of internal pressures, A., 355.
- Richards, T. W., and Francon, M., at. wt. of caesium, A., 1069.
- Richards, T. W., Frevert, H. L., and Teeter, C. E., jun., thermochemical study of the system cadmium-mercury, A., 710.
- Richards, W. T., oxygen electrode as a quasi-quantitative instrument, A., 986.
- Richards, W. T., and Loomis, A. L., chemical effects of high-frequency sound waves. I. Preliminary survey, A., 141.
- Richardson, C. L. See Trusler, H. M.
- Richardson, E. G., and Sutton, C. R., explosive properties of lacquer-solvent vapours, B., 275.
- Richardson, E. L., and West, W., drying apparatus applicable to preparation of fish flour, etc., (P.), B., 729.
- Richardson, F. W., tests for reconstituted cream, B., 585.
- Richardson, G. W., and Robertson, P. W., cryoscopic irregularities with phenols, A., 947.
- Richardson, H. L. See Griffin, K. M.,
- Richardson, J. A. See Morris Motors (1926), Ltd.
- Richardson, L. T. See Delaney, M. E.
- Richardson, O. W., extraction of electrons from cold conductors in intense electric fields, A., 341.

- Richardson, O. W., hydrogen molecule, A., 345.
 Richardson, O. W., and Chalklin, F. C., excitation of soft X-rays. II., A., 692.
 Richardson, O. W., and Davidson, P. M., spectrum of the hydrogen molecule, A., 812.
 Richardson, O. W. See also Flint, H. T.
 Richardson Co. See Fisher, H. C., and Lukens, A. R.
 Richartz, M. See Szivessy, G.
 Richarz, J. See Pfeiffer, P.
 Richet, C., *jun.* See Behague.
 Richter, A., daily variation of the blood-sugar of the ox, A., 663.
 Richter, A. F., multiple valency, A., 1068.
 Richter, A. F., Augsburg, F. A., and Stebbins Engineering and Manufacturing Co., treatment of fibre, (P.), B., 258.
 Richter, C., arc spectrum of germanium, A., 99, 1167.
 Richter, C. M. See Pacini, A. J.
 Richter, E., determination of atropine, B., 586.
 Richter, F., distillation retort, (P.), B., 5.
 Richter, G. A., and Brown Co., production of high α -cellulose fibre, (P.), B., 187, 668*.
 interrelated pulp refining and viscose process, (P.), B., 188.
 rayon [artificial silk] manufacture, (P.), B., 706.
 recovery of waste gases [sulphur dioxide] in production of sulphite pulp, (P.), B., 889.
 Richter, G. A., Schnr, M. O., and Brown Co., chemically treating and washing pulp, (P.), B., 853.
 Richter, G. A., Van Arsdell, W. B., Gosselink, J. G., and Brown Co., [staining] treatment of wood, (P.), B., 750.
 Richter, G. H., pressure regulation in vacuum distillation, A., 984.
 Richter, H., determination of dissolved gases in water, B., 214.
 Richter, H. See also Geffcken, H., and Schwarz, R.
 Richter, K. See Le Blanc, M.
 Richtmyer, F. K., classical theories of absorption and refraction of X-rays, A., 2.
 experimental tests of theories of the absorption of X-rays, A., 101.
 absorption of X-rays in various elements, A., 101.
 multiple ionisation and the absorption of X-rays, A., 939.
 Riddell, W. A., separating or classifying machine, (P.), B., 40, 319.
 Riddle, F. H., and Champion Porcelain Co., ceramic material, (P.), B., 784.
 refractory ware; ceramic material, (P.), B., 784*.
 Rideal, E. K., inhibition in chemical reactions, A., 1335.
 Rideal, E. K. See also Bowden, F. P., Brunner, M., Caress, A., Rideal, S., Ward, A. F. H., and Wright, (Miss) E. M.
 Rideal, S., Rideal, E. K., and Seiver, A., germicidal powers and capillary activities of certain essential oils, B., 730.
 Rider, D., and Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd., dehydration and distillation of tars or oils, (P.), B., 807*.
 Ridge, H. M., distillation of coal and similar fuels, (P.), B., 356.
 Ridyard, H. N., pipette, A., 501.
 Ridyard, H. N., and Style, D. W. G., experimental technique of photochemistry. V. Reflexion losses in the optical system of the Hilger ultra-violet monochromatic illuminator, A., 851.
 Ridyard, H. N. See also Beesley, E.
 Riebeck'sche Montanwerke Aktien-Gesellschaft, A., purification of light oils, (P.), B., 7.
 preparation of stable emulsions of coal dust in oil, (P.), B., 81.
 manufacture of montan wax, (P.), B., 883.
 Riebeth, A. See Ruff, O.
 Riebl, R. See Schröter, M.
 Rieche, A. [with Brumshagen, W.], dimethyl peroxide, A., 734.
 Riede, A., conductivity and Hall effect in sputtered platinum films, A., 824.
 Riedel, C. See Carl, F.
 Riedel, F., and Riedel Fertilising Process Co., apparatus for utilising impure gases or exhaust gases containing carbon dioxide, (P.), B., 858*.
 Riedel Aktien-Gesellschaft, J. D., production of hydrogen bromide from its elements, (P.), B., 52.
 production of adipic acid and its alkyl substitution products, (P.), B., 117.
 production of active sedative, hypnotic, and sleep-producing compounds, and compounds produced by such process, (P.), B., 140.
 manufacture of hydrogenated compounds, (P.), B., 224.
 manufacture of hydrogen peroxide, (P.), B., 366.
 manufacture of derivatives of 5:5-disubstituted barbituric acids, (P.), B., 624.
 Riedel Aktien-Gesellschaft, J. D., manufacture of hydroaromatic dicarboxylic acids, (P.), B., 665.
 preparation of aromatic [hydr]oxyaldehydes [vanillin], (P.), B., 873.
 Riedel Aktien-Gesellschaft, J. D. See also Boedecker, F.
 Riedel Fertilising Process Co. See Riedel, F.
 Rieder, J., etching process [for metals] with electrolytically produced protective films, (P.), B., 790.
 Riehl, N., validity of Geiger's counter for β -particles and the β -particle emission from radium-E and radium-D, A., 344.
 Riehm, H. See Arrhenius, O.
 Rieman, W., Hagenbach correction in the determination of viscosity by the efflux method, A., 229.
 Rieman, W., and Hawkinson, A. T., simpler derivation of the Cook formula for determination of acetyl value of fats and oils, B., 718.
 Rienäcker, G. See Hevesy, G. von, and Zintl, E.
 Rienäcker, W. See Tammann, G.
 Riese, W. See Schönfelder, R.
 Riesenfeld, E. H., and Bandte, G., determination of aromatic and unsaturated hydrocarbons in light petroleum, B., 325.
 Riesenfeld, E. H., and Bohnholtz, W., thermal decomposition of ozone, A., 24.
 Riesenfeld, E. H., and Sydow, G., decomposition of sodium thiosulphate in hydrochloric acid solution, A., 1199.
 determination of polythionates, A., 1204.
 Rieser, A. See Blanck, E.
 Riess, C., washing sulphonated oils with salt solutions, B., 646.
 apparatus for determining the ethyl acetate value of tannins, B., 722.
 Riess, G., Meyer, Rudolf, and Müller, Waller, comparison of saltpetre and sodium nitrite as pickling agents for flesh wares, B., 834.
 Riesser, O., and Kindt, B., silicic acid excretion in man after ingestion of sodium silicate, A., 789.
 Riesser, O. See also Hansen, Anneliese.
 Riesz, E., and Frankfurter, W., sulphur-containing derivatives of acetophenone, A., 1009.
 Riesz, E. See Blumenstock-Halward, E., Gebauer-Fülnegg, E., and Pollak, J.
 Rietti, C. T., diffusion of carbamide in various body fluids, A., 789.
 Rigg, G. B. See Thompson, T. G.
 Rigo, L. See Lång, S.
 Riiber, C. N., and Minsas, J., mutarotation. VIII. Mutarotation of mannose, A., 47.
 Rikof, O. N., separation of fine sand from sludge, (P.), B., 125.
 Riley, A. See Imperial Chemical Industries, Ltd.
 Riley, G. W., plant for the drying of cossettes in the De Vecchis process of beet sugar manufacture, B., 460.
 Riley, G. W., and Scott & Son (London), Ltd., G., tubular evaporators, (P.), B., 72.
 Riley, R. S. See Riley Stoker Corporation.
 Riley, T. See Hilditch, T. P.
 Riley & Sons, Ltd., J., Bentley, W. H., and Coates, W. M., manufacture and treatment of colloidal materials [fungicides, insecticides, etc.], (P.), B., 651.
 Riley & Sons, Ltd., J. See also Bentley, W. H.
 Riley Stoker Corporation, Riley, R. S., and Craig, O., pulverising apparatus, (P.), B., 72.
 Riley Stoker Corporation. See also Andrews, L. V.
 Rimington, C. See Eker, E. E.
 Rinderknecht, H., stabilisation of disperse systems with coherent liquid phases, (P.), B., 879.
 Ringborn, A. See Hägglund, E.
 Ringer, F., manufacture of cellular rubber and elastic tyres therefrom, (P.), B., 532.
 Ringrose, H. T., apparatus for detecting, indicating, and recording the presence of inflammable vapours or gases, (P.), B., 663.
 Ringsdorf-Werke Akt.-Ges., drying and removing gases from metal powders, (P.), B., 610.
 Rinkes, I. J., constitution of bixin, A., 1377.
 Rinne, F., synthetic spinel, A., 730.
 Rinne, F. See also Hentschel, H.
 Rinse, J., vapour pressure, dissociation, and transition point of mercuric sulphide, A., 227.
 vapour pressure and dissociation of mercuric iodide, A., 228.
 influence of glass on vapour pressure, A., 829.
 Rinse, J. See also Smits, A.

- Riou, P., and Bérard, P. A., rates of absorption of sulphurous gases by alkaline solutions, B., 482.
rate of absorption of sulphurous gases by magnesium hydroxide [and sulphite], B., 567.
- Riou, P., and Cartier, P., influence of viscosity on the rate of absorption of carbon dioxide by neutral sodium carbonate, A., 831.
- Riou, P., and Lortie, L., influence of some colloidal substances on the rate of absorption of carbon dioxide by neutral sodium carbonate solutions, A., 702.
- Ripan, R., metal cyanates. I. Ammines with pyridine of simple cyanates. II. Detection, separation, and gravimetric determination of aluminium, A., 499.
sensitive differentiation of phthalic and terephthalic acids, A., 1006.
- Rippel, A., sulphur cycle in soil, B., 421.
law of crop yield, B., 870.
- Rippel, A. [with Lehmann, B., and Storck, A.], Mitscherlich's law of crop growth, B., 906.
- Rippel, A., and Poschenrieder, H., nitrogen fixation by micro-organisms, B., 683.
- Ripper, K., and Pollak, F., manufacture of urea-formaldehyde condensation products, (P.), B., 867*.
- Ripperton, J. C., carbohydrate metabolism and its relation to growth in the edible canna, A., 1289.
- Rippey, H. F., See Laucks, Inc., I. F.
- Rippon, (Miss) D. M. L. See Plant, S. G. P.
- Rischbieth, P., analysis of nitrates, B., 745.
- Rising, M. M., and Zee, T. W., synthesis of methyl phenylethyl-malonate, A., 638.
sodium salts of aromatic nitriles. I., A., 881.
- Risler, J., Philibert, A., and Courtier, J., photo-biological action of light, A., 675.
- Risler, J. See also Philibert, A.
- Risse, O. See Gloekler, R.
- Rissik, Fraser & Co., Ltd. See Fraser, A.
- Ristenpart, E., effect of oxycellulose on tests for mercerisation, B., 601.
- Ritchie, K. S., influence of light on the colour of ferric chloride solutions, A., 1102.
- Ritt, E. See Dziewoński, K.
- Ritter, F. H., nephelometric investigation of starch sols; nephelometric law of dilution, A., 235.
- Ritter, G. J., composition and structure of the cell-wall of wood, A., 1162.
- Ritter, G. J., and Fleck, L. C., furfuraldehyde and carbon dioxide from wood before and after chlorination, B., 400.
- Ritter, W. See Ephraim, F.
- Rittmann, R., chemical changes of the blood in asphyxia. I., A., 441.
- Rius, A., electrometric determination of hydrogen peroxide and the associated peracids, A., 977.
- Rius, A., and Arnal, V., electrometric titration of hypochlorite and hypochlorite-carbonate mixtures, B., 813.
- Rivat, G. See British Celanese, Ltd.
- Rivers, F., manufacture of materials containing iron oxide and of paint therefrom, (P.), B., 814.
- Rivett, A. C. D. See Goode, E. A.
- Rivlin, R. See Fodor, A., and Reiner, M.
- Rjabinin, G. See Semenov, N.
- Roach, B. M. B., influence of light and of dextrose on the growth of a soil alga, A., 803.
- Roark, R. C., fumigant, (P.), B., 38*.
- Roark, R. C., and Cotton, R. T., insecticidal action of esters of halogenated fatty acids in the vapour phase, B., 497.
- Roark, R. C. See also Cotton, R. T.
- Robb, J. A. See Hall, R. E.
- Robbins, W. J., isoelectric point for plant tissue and its importance in absorption and toxicity, A., 92.
- Robbins, W. R. See Nightingale, G. T.
- Robert, A., terpineol from terpin, B., 389.
- Robert, F. See Jansen, W. H.
- Robertson, S. L., volumetric determination of copper and zinc, A., 1347.
- Roberts, A. M. See Pollard, W. S.
- Roberts, E. See Lovett, A. B. E., and Western States Machine Co.
- Roberts, E. H. See Watson, B. B.
- Roberts, E. J., and Fenwick, F., simple type of flowing junction, A., 23.
antimony-antimony trioxide electrode and its use as a measure of acidity, A., 1098.
- Roberts, E. J. See also Putnam, P. C.
- Roberts, E. N., Wyoming forage plants and their chemical composition. VII. Effect of altitude, seasonal variation, and shading experiments, B., 102.
- Roberts, I. C. See Bradfield, A. E.
- Roberts, J. G., electrodeposition of chromium, B., 931.
- Roberts, L. D. See Glockler, G.
- Roberts, M. H. See Tolman, R. C.
- Roberts, W. J. See Lucas, P. S.
- Robertson, A., and Robinson, R., synthesis of pyrylium salts of anthocyanidin type. XV. Synthesis of cyanidin chloride by means of *O*-benzoylphloroglucinaldehyde, A., 893.
synthesis of anthocyanins. V. Synthesis of 3- β -glucosidyl-pelargonidin chloride, believed to be identical with callistephin chloride, A., 895.
- Robertson, A., Robinson, R., and Struthers, (Miss) A. M., synthesis of anthocyanins. IV. Constitution of *O*-benzoylphloroglucinaldehyde, A., 1020.
- Robertson, A., Robinson, R., and Sugiura, J., synthesis of pyrylium salts of anthocyanidin type. XVI. Synthesis of pelargonidin chloride by means of *O*-benzoylphloroglucinaldehyde, A., 894.
- Robertson, A. H., thermophilic and thermophilic micro-organisms, with special reference to species isolated from milk. I. Review of literature. III. Description of non-spore-forming, thermophilic and thermophilic micro-organisms, with special reference to species isolated from milk. II. Thermal resistance of micro-organisms, B., 501.
- Robertson, G. R., reaction of chloroacetic acid with ammonia, and the preparation of glycine, A., 49.
- Robertson, H. M., [tunnel] kiln, (P.), B., 839.
- Robertson, H. P., and Dewey, (Miss) J. M., Stark effect and series limits, A., 807.
- Robertson, H. P. See also Dewey, (Miss) J. M.
- Robertson, J. M., X-ray investigation of the structure of some naphthalene derivatives, A., 574.
- Robertson, J. R., colour screens for photographic purposes, (P.), B., 349.
- Robertson, K. J. R. See Carrier Engineering Co., Ltd.
- Robertson, M. C. See Stevens, T. S.
- Robertson, P. W. See Griffin, K. M., and Richardson, G. W.
- Robertson, (Sir) R., and Fox, J. J., infra-red region of the spectrum I. Prism spectrometer and apparatus. II. Calibration of prism spectrometer; general procedure; preparation of pure ammonia, phosphine, and arsine. III. Infra-red absorption spectra of ammonia, phosphine, and arsine. IV. Discussion of absorption bands of ammonia, phosphine, and arsine, A., 1073.
- Robertson, T. B., influence of nucleic acids of various origin on the growth and longevity of the white mouse, A., 669.
influence of thyroid alone and of thyroid administered together with nucleic acids on the growth and longevity of the white mouse, A., 676.
- Robertson, T. B., Hicks, C. S., and Marston, H. R., utilisation of nucleic acids of animal and vegetable origin, A., 87.
- Robeson, J. S., manufacture of fuel briquettes, (P.), B., 436.
- Robine, R., and Dejussieu, M., composition of the thermal waters from Barèges (Hautes-Pyrénées), A., 267.
- Robinson, A. L., solubility of potassium bromide in acetone as related to the inter-ionic attraction theory, A., 944.
- Robinson, A. L. See also Kautz, C. F.
- Robinson, C. J. See Robinson & Son, Ltd., T.
- Robinson, E. B., tests for impurities in anaesthetic ether, B., 586.
- Robinson, G. W., nature of clay, and its significance in the weathering cycle, A., 731.
- Robinson, H. R., multiple ionisation in X-ray levels, A., 2.
- Robinson, H. W., and Parkes, D. W., resolution of emulsions or suspensions containing tar or oil, (P.), B., 81.
removal of tar acids from ammonia liquor and other liquors, (P.), B., 117*.
resolving emulsions of tar or oil, (P.), B., 844*.
- Robinson, J. See Gilman, H.
- Robinson, M. E. See Onslow, M. W.
- Robinson, N., absorption by excited hydrogen, A., 807.
- Robinson, P. See Eastman, E. D.
- Robinson, P. J., and Gueritte, A. T. J., water-cooling towers, (P.), B., 551.
- Robinson, P. L. See Briscoe, H. V. A., Mills, H., Parker, T. W., Pearson, T. G., Peel, J. B., Sayce, L. A., and Stevenson, J.
- Robinson, R., the catechin problem, A., 1256.

- Robinson, R. See also Ashley, J. N., Bottomley, A. C., Bradley, W., Chapman, E., Chatterjee, B., Murakami, S., Perkin, W. H., jun., Pollard, A., and Robertson, A.
- Robinson, S. K., and Kraft-Phenix Cheese Co., re-making cheese, (P.), B., 728.
- Robinson, T. See Internat. Copperclad Co.
- Robinson, W. W., smoke washers, (P.), B., 254.
- Robinson Manufacturing Co. See Dimm, C. R.
- Robinson & Son, Ltd., T., and Robinson, C. J., conditioning and drying grain, (P.), B., 623.
- Robison, R., and Morgan, W. T. J., trehalosemonophosphoric ester isolated from the products of fermentation of sugars with dried yeast, A., 1285.
- Robison, R. See also Morgan, W. T. J.
- Robitschek, J., silicate analysis, A., 860.
- use of 8-hydroxyquinoline in silicate analysis, B., 895.
- Robitschek, W. See Hirschhorn, S.
- Roboroh, J. A., solubilities of drugs in glycerin, B., 68.
- Robschelt-Robbins, F. S., Elden, C. A., Sperry, W. M., and Whipple, G. H., blood regeneration in severe anemia. XII. Influence of ash of apricots, liver, kidney, and pineapple, A., 1394.
- Robson, H. L., system magnesium sulphate-water from 68° to 240°, A., 19.
- Robson, H. L. See also Blasdale, W. C.
- Robson, S., contact process for the manufacture of sulphuric acid from zinc blende roaster gases, B., 480.
- preparation of ammonium sulphate, (P.), B., 523.
- heat exchangers, (P.), B., 878.
- Robson, S. M., and Jacobs, L., value of the diazo-test on blood, A., 1274.
- Robson, W., metabolism of tryptophan. II. Synthesis of 6- and 8-methylkynurenine [4-hydroxyquinoline-2-carboxylic] acids, A., 1141.
- metabolism of tryptophan. III. Mode of formation of kynurenine acid from tryptophan, A., 1154.
- Robson, W. See also Christy, R. K.
- Rocard, Y., molecular aggregation; theory of liquefaction, A., 354.
- new diffuse radiations, A., 571.
- molecular theory of diffusion of light in fluids. I. Without consideration of the intermolecular field. II. The intermolecular field, A., 1310.
- hydrodynamics and the kinetic theory of gases, A., 1327.
- Roche, A., and Roche, J., rôle of calcium in the action of the glycolytic enzyme and the phosphatase of blood, A., 786.
- Roche, B. M., and Voisin, U. B., production of calcium aluminate cement, (P.), B., 929.
- Roche, J., precipitation of phosphorus as strychnine phosphomolybdate (Embsden's method); micro-determination of the various "forms" of phosphorus in blood and of combined phosphorus in various organic substances, A., 1392.
- Roche, J. See also Roche, A.
- Rochwarger-Walbe, (Mrs.). See Glassmann, B.
- Rockwell, G. E. See McLaughlin, G. D.
- Rodd, E. H., Everatt, R. W., and British Dyestuffs Corporation, Ltd., manufacture of dinitrotoluene, (P.), B., 183*.
- Rodd, E. H. See also British Dyestuffs Corp., Ltd.
- Rode, A. O., influence of calcium carbonate on the soil, B., 134.
- Rode, E. J. See Kurnakov, N. S.
- Rode, O., aspirator, A., 983.
- Rodebush, W. H., valency and the rule of eight, A., 817.
- Rodebush, W. H., and Michalek, J. C., effect of intensive drying on the vapour pressure and vapour density of ammonium chloride, A., 469.
- Rodebush, W. H. See also Peterson, J. M.
- Rodgers, H. J. See Forsyth, R.
- Rodhe, O., and Svenska Aktiebolaget Mono, gas-analysing apparatus, (P.), B., 288*.
- gas analysis recorder, (P.), B., 321.
- Rodin, S. See Kitaigorodsky, I.
- Rodionov, W. M., and Fedorova, A. M., β -phenylalanine derivatives, A., 638.
- Rodis, F. See Brintzinger, H.
- Rodman, C. J., water softening with barium salts, B., 466.
- Rodman, C. J., and Hecht, M., reconditioning of mineral oils, (P.), B., 919.
- Rodman, C. J., and Westinghouse Electric & Manufacturing Co., deoxidiser, (P.), B., 162.
- Rodolico, F., sulpho-salts. V. Additive compounds with hexamethylenetetramine, A., 973.
- Rody, T. See Meursing, A. H.
- Roe, J. H., and Irish, O. J., determination of urea in blood and urine by direct nesslerisation, A., 663.
- Roe, J. H., Irish, O. J., and Boyd, J. I., preservation of blood for chemical analysis by means of sodium fluoride, A., 192.
- Roe, J. H., and Kahn, B. S., serum calcium content of man, A., 1391.
- Roebke, E. T., and American Pulverizer Co., pulverising machine, (P.), B., 801.
- Röbke, F. See Fricke, R.
- Roeder, M. G., precipitation of copper with sodium thiosulphate, A., 386.
- determination of copper in molybdenite, B., 787.
- Roederer, H. See Winterfeld, K.
- Rödiger, W. See Ostwald, Wolfgang.
- Röhm & Haas Akt.-Ges., emulsions suitable for tanning, (P.), B., 651.
- Röhre, K. See I. G. Farbenind. A.-G.
- Röhrig, H., destruction of aluminium by mercury and means for preventing it, B., 302.
- Röll, J., deposition of ammonium sulphide precipitates, A., 263.
- detection of vanadium, [uranium, and titanium], A., 983.
- Rölz, E. See Müller, Adolf.
- Roemer, H. A., and Williams, D. A., manufacture of metal-coated sheet, (P.), B., 644.
- Roemer, T., Dirks, and Woack, three-year comparison of Neubauer analyses and field trials, B., 135.
- Römmeler, K., treatment of fibrous filling material for use in the manufacture of plastic masses, (P.), B., 187.
- Rordam, H. N. K., Walden inversion, A., 1215.
- Rösch, H., and Kamp, W. T., ammonia production on illumination of the retina, A., 792.
- Roesch, K., and Werz, W., iodometric determination of vanadium in special steels and in ferrovanadium, B., 409.
- Roesch, K. See also Moyer, Oskar.
- Rösch, S., toluoylenol, A., 114.
- graphic representation of colours, A., 345.
- crystallography, especially optical, of some organic compounds, A., 695.
- Roescheisen, H. See Schotte, H.
- Rössler, field and vegetation experiments on mineral soils showing exchange acidity, B., 537.
- Rössler, A. See I. G. Farbenind. A.-G.
- Roessler & Hasslacher Chemical Co., vulcanisation of rubber, (P.), B., 203.
- Roessler & Hasslacher Chemical Co. See also Brown, M. J., Magill, P. La F., Schultenber, W., Storch, H. H., Trusler, R. B., and Whitby, G. S.
- Roetheli, B. E. See Chappell, E. L.
- Roffey, F. See Garner, W. E.
- Roffo, A. H., and Barbara, B., activity of catalase in normal and neoplastic tissues, A., 321.
- Roga, B. See Swientoslawski, W.
- Rogers, A., and Banta, C., lacquer formulation, with special reference to the use of cumar, B., 275.
- Rogers, C. H., determination of sulphur combined as sulphides in potassa sulphurata (liver of sulphur), B., 709.
- Rogers, D. G., and National Aniline & Chemical Co., Inc., manufacture of 2-aminoanthraquinone, (P.), B., 118.
- method of effecting caustic fusions [to produce indigo], (P.), B., 119.
- Rogers, F. M., McNeil, C. P., and Standard Oil Co., insecticide and fungicide, (P.), B., 870.
- Rogers, G. L., use of the simulative test furnace as a means of making comparative tests of fire bricks, B., 570.
- Rogers, J. S., mobilities of the positive ions formed by α -rays in air, hydrogen, and helium, A., 682.
- Rogers, M. N. See Farr, C. C.
- Rogers, R. A., M-series X-ray absorption spectra of osmium, iridium, and platinum, A., 101.
- Rogers, S. M., and Adkins, L. R., Saybolt-type micro-viscosimeter, A., 984.
- Rogers, T. H. See Baldisiefen, W. D.
- Rogers, V. C., and Dougherty, G., hexaphenylethane alkyl sulphide additive compounds, A., 271.
- variation of the Carius method for sulphur determination, A., 660.
- Rogers, W. D. See British Dyestuffs Corp., Ltd.
- Rogers, W. H., fuel, (P.), B., 180.

- Rogluski, S., and Schulz, E., catalysis of solid-phase reactions by solids, A., 1196.
- Rogovina, P. V. See Salkind, J. S.
- Rogovine, E. See Duparc, L.
- Rogoziński, F., microchemical determination of calcium, A., 980, 1108.
- Rogozński, F., and Starzewska, M., digestion of lignin by ruminants, A., 1050.
- Rohm & Haas Co., and Hollander, C. S., bleaching of fabrics, (P.), B., 744.
- Rohm & Haas Co., and Lauter, F., production of resinous condensation products of the urea-formaldehyde type, (P.), B., 165*.
- Rohm & Haas Co. See also Lauter, F.
- Rohmann, C., potentiometric determination of chlorine in milk, B., 910.
- Rohmann, H., and Elektr. Gasreinigungs Ges.m.b.H., electrical gas purification, (P.), B., 900.
- Rohn, W., and Siemens-Schuckertwerke Ges.m.b.H., electric bright-annealing furnaces, (P.), B., 717*.
- Rohn, W. See also Heræus Vacuumsmelze A.-G., and Vacuumsmelze Ges.m.b.H.
- Rohny, B., glycolysis. I. Glycolysis in blood of normal (non-diabetic) dogs, A., 321.
- behaviour of various sugars in the Bang micro-method; reducing power of lævulose in the Bertrand method, A., 1292.
- Rohrbach, E. See Bauer, K. H.
- Roitzheim, A., and Remy, W., extraction of zinc, (P.), B., 715.
- Rojahn, C. A., colorimetric determination of iodine in homœopathic and biochemical preparations, A., 448.
- Roka, K., and Holzverkohlungs-Ind. Akt.Ges., production of acetone, (P.), B., 327.
- Roka, K. See also Krause, E.
- Roland, (Mlle.) M., concentrated solutions. V. Experimental determination of the thermodynamic activity of the constituents of binary mixtures of organic compounds, A., 591.
- Rolet. See Sourdillon, A.
- Rolfen, O., manufacture of lubricants, (P.), B., 81.
- Roliniski, J., association in liquid dielectrics, A., 1181.
- Rolitch, T. See Zavadovski, B.
- Roll, R., separation of tall oil into its constituents, (P.), B., 60.
- Rolla, L., and Fernandes, L., isolation of florentium (element 61), A., 261.
- florentium, A., 267.
- fractional separation of neodymium and samarium, A., 853.
- Rolla, L., and Piccardi, G., rare earths in the stellar atmospheres, A., 1211.
- Rolland, J. See Wahl, A.
- Roller, P. S., theory of end-point in electrometric titration, A., 262.
- Rollet, A. P., existence of silver oxide, Ag_2O_3 , A., 493.
- Rollett, A., acid constituents of sandarac resin, A., 1016.
- Rom, H., stirrer for rapid electro-analysis, A., 143.
- Roman, F. L., Winsemius, H. T., and Western Electric Co., Inc., insulated electrical conductor, (P.), B., 162.
- Romanelli, E., and Westinghouse Lamp Co., electrolytic [rectifying] cell, (P.), B., 199.
- Romani, B. See Mazzucchelli, A.
- Roman-Levinson, W., Landolt's reaction. V. Catalytic influence of sodium thiosulphate on the Dushman reaction, A., 964.
- Romanofsky, W. See Swiatkowski, H.
- Romburgh, P. van, essential oil from the leaves of *Caesalpinia sappan*, L., B., 316.
- Romburgh, P., van, and Huyser, W. H., formation of derivatives of dihydrobenziminazole and tetrahydroquinoxaline by the action of acetic anhydride and zinc chloride on nitro-derivatives of alkylanilines, A., 428.
- Romeo, G., and Pirrone, F., behaviour of vanillin towards alkali sulphites and hydrogen sulphites, A., 886.
- Romieux, C. J., and American Cyanamid Co., manufacture of a phenol[-formaldehyde] resin, (P.), B., 493.
- Rommel, G. M., cellulose resources. I. Annual wood crop, B., 477.
- cellulose resources. II. Cellulose from field crops, B., 636.
- Romwalter, A., bactericidal effect of chlorine in water, B., 109.
- Rona, E., and Schmidt, E. A. W., preparation of highly concentrated polonium by distillation, A., 810.
- Rona, P., and Itelsohn-Schechter, R., stereochemical specificity of lipases, A., 1157.
- Rona, P., and Kleinmann, H., nephelometric determination of trypsin and pepsin in gastric and intestinal juice; stability of trypsin, A., 320.
- enzymic proteolysis. VII. Influence of ions on the stability of trypsin, A., 923.
- Rona, P., and Mislowitz, E., enzymic proteolysis. I. and II., A., 923, 1401.
- Rondier, L. See Sanfourche, A.
- Rood, P., visual method of showing high temperature coefficient of resistance of metals as compared with alloys, A., 863.
- Roodvoets, A. C. W. See Kruyt, H. R.
- Rooksby, H. P. See Hyslop, J. F.
- Rooney, J. H. See Dickie, W. A.
- Roos, C. K. See Brookby, H. E.
- Roos, J., pepsinometric method; pepsin determination, A., 551.
- Roos, C. See Gay.
- Roos & Co., B., production of porous sodium sulphide readily soluble in water, (P.), B., 814.
- Rooseboom, A. See Waterman, H. I.
- Ropp, C. D. L. See Simmons, J. P.
- Rosa, J. T., chemical changes accompanying the western yellow blight of tomato, B., 798.
- Rosbaud, P., X-ray investigations of rubber and related substances, A., 466.
- Rosbaud, P. See also Hauser, E. A.
- Rosch, G. See König, W.
- Roschier, H., importance of hydrogen-ion concentration in the sizing of paper, B., 851.
- Roscoe, M. H. See Chick, H.
- Rose, A. See Chamberlin, D. S.
- Rose, A. R., and Schattner, F., glycolysis in blood samples, A., 663.
- Rose, C. A., Read, C. L., and American Smelting & Refining Co., purification of metallic antimony, (P.), B., 337.
- Rose, D. C., reflexion of electrons from an aluminium crystal, A., 1299.
- Rose, E. S., determination of sugar, uric acid, urea, and creatinine in 1 c.c. of blood, A., 315.
- Rose, H. V. See Koppers Co.
- Rose, M. S., and McCollum, E. L., nutrition. I. Growth, reproduction, and lactation on diets with different proportions of cereals and vegetables. II. Effect of addition of egg, A., 1050.
- Rose, R. See Askenasy, P.
- Rose, R. E., and Du Pont de Nemours & Co., E. I., disubstituted guanidine salts of dyes containing acid groups, (P.), B., 741.
- Rose, R. E. See also Du Pont de Nemours & Co., E. I.
- Rose, R. P., and Mechanical Rubber Co., treatment of rubber-fibre waste material, (P.), B., 868.
- Rose, W. C., Ellis, R. H., and Heming, O. C., transformation of creatine into creatinine by the male and female human organism, A., 668.
- Rose, W. C., Helmer, O. M., and Chanutin, A., determination of total creatinine in small amounts of tissue, A., 84.
- Rose, W. C. See also Bunney, W. E., and Westerman, B. D.
- Rosedale, J. L., the antineuritic vitamin. I. A possible second factor, A., 92.
- amino-acids of flesh. II. Diamino-acid content of some normal and pathological tissues, A., 790.
- Rosello, J. See Margillan, L.
- Rosen, B., molecular spectrum of sulphur, A., 687.
- Rosen, B. See also Fringsheim, P.
- Rosen, I., and Krasnov, F., calcium content of the serum of normal adults, A., 1045.
- Rosenbaum, C. K. See Walton, J. H.
- Rosenbaum, R. R., fuller's earth treating process, (P.), B., 45.
- Rosenberg, A. See Efremov, N. N., and Fodor, A.
- Rosenberg, M., antagonism of insulin and "thyreodin" in carbohydrate metabolism, A., 206.
- Rosenberg, P. See Cherbuliez, E.
- Rosenblatt, M. See Bertrand, G.
- Rosenblatt, (Mme.) M. See Bertrand, G.
- Rosenblum, C. See Sunier, A. A.
- Rosenblum, S., powers of retardation of atoms relative to α -particles, A., 104.
- Rosenbohm, A., occurrence and detection of a pigment resembling hæmochromogen in suprarenal glands, A., 1393.
- Rosenbohm, E. See Jaeger, F. M.
- Rosencrants, F. H., firing of furnaces with pulverised fuel, (P.), B., 143.
- Rosenfeld, G., fatty degeneration of embryonic cells, A., 200.

- Rosenfeld, L., relationship between chemical reactivity and biological activity of iron compounds, A., 199.
- Rosenfeld, L., and Witmer, E. E., refractive index for electron waves, A., 936.
- Rosenfeld, L. See also Witmer, E. E.
- Rosenhauer, E., and Unger, H., transformation of diazoaminobenzene into aminoazobenzene, A., 407.
- Rosenheim, A., increasing the base-exchange capacity of glauconite or of materials containing or similar to glauconite, (P.), B., 110.
- absorbing agent, (P.), B., 659.
- production of base-interchanging substances, (P.), B., 710, 784.
- Rosenheim, A., and Trewendt, G., silver alkali thiosulphates, A., 1199.
- Rosenheim, O., induced fluorescence of ergosterol, A., 92.
- Rosenheim, O., and Schuster, E., colorimeter based on the Lovibond colour system and its application to the testing of cod-liver oil and other purposes, A., 95.
- Rosenheim, O., and Webster, T. A., specificity of ergosterol as parent substance of vitamin-D, A., 557, 801.
- Rosenhoch, E. See Zigarettenfabr. Lesmona Ges.m.b.H.
- Rosenmund, K. W., and Döring, H., bromoformic esters, A., 1114.
- Rosenmund, K. W., and Schindler, H., catalytic reduction of mandelic acids, A., 1005.
- Rosenmund, K. W., and Schnurr, W., acyl wandering with phenols, A., 1010.
- Rosenmund, K. W., and Wha, C., carvacryl [2-hydroxy-5-*p*-cymyl] ketones, A., 1010.
- Rosenqvist, T. See Hägglund, E.
- Rosenthal, A. See Walbaum, H.
- Rosenthal, O., and Lasnitski, A., metabolism of stationary and growing tissues, A., 916.
- Rosenthaler, L., Treub's hypothesis. II., A., 93.
- chemical characteristics of drugs; behaviour of agar towards iodine, B., 172.
- characterisation of Peru and Tolu balsams, and of storax, B., 648.
- Rosenzweig, E. J., manufacture of tanning materials from sulphite-cellulose waste liquors, (P.), B., 682.
- Roser, E., distillation of fuel, (P.), B., 180.
- Rosianu, A. See Manieatide, M.
- Rosin, J., and Merck & Co., preparation of *p*-alkoxyphenylglycinamides, (P.), B., 654.
- Rosin, J. See also Collins, W. D.
- Rosin, P., problems of the brown coal low-temperature carbonisation process, B., 629.
- Rosinger, A., and Vettes, J. J., method for determining the tensile strength of gelatin jellies, A., 126.
- Rosnatovsky, fermentation of dextrose by *Bacillus coli*, A., 447.
- Ross, I. C., *in vitro* tests of the toxicity of certain drugs for hydatid scolices, A., 327.
- Ross, L. See Liarg, D.
- Ross, R. R., dyeing of fabrics, (P.), B., 260.
- Ross, S. W. See Williams, R. T. D.
- Ross, W. H. See Reynolds, D. S.
- Rossander, S. S., and Marvel, C. S., reaction of the Grignard reagent with γ -chloropropyl *p*-toluenesulphonate; a method of lengthening carbon chains by three carbon atoms, A., 732.
- Roszbach, F., lime, phosphate, and nitrogen requirements of arable soils, B., 279.
- Rossmann, A. van, and Meyden, H. van der, physico-mechanical properties of vulcanised rubber at high temperatures. II., B., 100.
- plasticity and elasticity of rubber, B., 793.
- Rosser, R. J. See Plant, S. G. P.
- Rossi, C. See Nasini, A.
- Rossi, L., rapid method for differentiating tartaric and citric acids, B., 873.
- Rossier, G. See Duparc, L.
- Rossignol, J., spectroscopy of the mercury spark produced in a sustained circuit oscillating at high frequency, A., 99.
- Rossmann, E. See Eibner, A.
- Rossner, E. See Abderhalden, E.
- Rosthorn, O. von, manufacture of copper alloys, (P.), B., 610*.
- Rostin, H., hydrogenation of cracked hydrocarbon oils, (P.), B., 807.
- Roszmann, C. A., retention of phosphorus by soil colloids, B., 168.
- Roth, E. See Elek, L.
- Roth, E. B., retort for treating oil shale, (P.), B., 45.
- Roth, E. W., and General Petroleum Corporation of California, separation of acid sludge emulsions; hydrolysis of acid sludge, (P.), B., 358.
- Roth, H. See Durst, G.
- Roth, J. M., production of non-ferrous coated billets of steel, (P.), B., 488.
- Róth, L. E. See Bodnár, J.
- Roth, W. A., heat of dissolution of potassium nitrate in water, A., 22.
- conductivity cells with electrodes of "brominated silver" instead of platinum, A., 369.
- heat of combustion of benzoic acid, A., 1191.
- heat of combustion of foundry coko and other varieties of carbon, B., 880.
- Roth, W. A., and Chall, P., thermal investigation of some important metallurgical reactions in a colorimeter working at high temperatures, A., 593.
- Roth, W. A., Doepke, O., and Banse, H., absolute determination of heat of combustion of benzoic acid, A., 712.
- Roth, W. A., and Schwartz, O., physico-chemical investigations of ordinary and uranium lead chloride, A., 942.
- Rothebild, H. A. See Mahler, E.
- Rothe, F., Brenek, H., and Rhenania Verein Chemische Fabriken Akt.-Ges., production of pure alumina and alkali carbonates, (P.), B., 748*.
- Rothe, F. See also Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges.
- Rothmund, P. See Fischer, Hans.
- Rothembach, E. F., errors in malt analysis due to the want of standardisation of the degree of fineness of the malt meal, B., 65.
- Rothembach, E. F. See also Stockhausen, F., and Windisch, W.
- Rothlin, E., and Oliaro, T., biological determination of the amounts of cardio-active glucosides absorbed by the heart of the frog, A., 548.
- Rothlin, E. See also Billeter, O.
- Rothmann, A., Hileken, V., and Boehringer & Soehne G.m.b.H., C. F., manufacture of derivatives of cinchona alkaloids, (P.), B., 548*.
- Rothschild, F., and Jacobsohn, M., [action of various substances on the composition of the blood]. II. Thyroid gland. III. Tyramine. IV. Adrenaline. V. Atropine. VI. Choline, A., 330.
- Rothschild, K. See Jander, W.
- Rothstein, B. See Palfray, L.
- Rothstein, E. See Ingold, C. K.
- Rothstein, K., inactivation of trypsin by Röntgen rays of different hardness, A., 673.
- Rothstein, L. See Palfray, L.
- Rotinjanc, L. A. See Nagornov, N. N.
- Rottenburg, L. See Comyn, B. D.
- Roubeau, H. See Labbé, M.
- Rouche, H., nitration of *m*-acetamidobenzotrifluoride, A., 876.
- Roughton, F. J. W. See Hartridge, H.
- Roughitch, O. S., uric acid and creatinine in the urine of infants, A., 1272.
- uric acid in the urine of infants, A., 1272.
- Round, A. A. See Friend, J. A. N.
- Rourke, M. D., determination of sodium in blood-serum or -plasma, A., 1045.
- Rousseau, E., photometric determination of the permeability of olive oil towards ultra-violet light, A., 226.
- determination of manganese in steels and other alloys with a high content of chromium or cobalt, B., 55.
- Rousseau, E. See also Andant, A.
- Rousseau, L. M., production of theobromine from cacao or cocoa waste, (P.), B., 913.
- Rousseau, S. See Javillier, M.
- Rouvillois, J. See Job, A.
- Roux, A., and Cournot, J., crystallographic X-ray study of the structure of simultaneous electrolytic depositions of two metals, A., 851.
- Rouyer, E. See Bourion, F.
- Rouzaud, J. J., and Soula, L. C., effect of closing the hepatic veins on the sugar and cholesterol content of blood, A., 918.
- Rovesti, P., ethereal oils extracted from the principal native aromatic plants of Erythrea, B., 139.
- ethereal oil of Bulgarian *Geranium macrorrhizum*, L., B., 547.
- Rovida, E. See Charrier, G.
- Rowan, W., bird feathers and antirachitic vitamin-D, A., 557.

- Rowe, E. J., drying apparatus for textile goods, etc., B., 668.
- Rowe, F. M., Himmat, M. A., and Levin, E., reaction of diazo-sulphonates derived from β -naphthol-1-sulphonic acid. III. Preparation of phthalazine, phthalazone, and phthalimidine derivatives from *m*-nitroaniline, A., 1262.
- Rowe, F. M., and Levin, E., reaction of diazo-sulphonates derived from β -naphthol-1-sulphonic acid. II. Constitution of nitro- and amino-phenylphthalazones, A., 1262.
- Rowe, F. M. See also Burr, A. H.
- Rowe, J. W., effect on cellulose fibres of treatment in the paper-maker's beater, B., 476.
- Rowe, L. W. See Kamm, O.
- Rowell, H. S., and Finlayson, D., viscosimetry [of motor fuels], B., 699.
- Rowland, D. H., and American Ichthyol Oil Co., manufacture of ammonium sulphoichthyolate, (P.), B., 389.
- Rowland, G. E. See Howard, Ltd., J. & F.
- Rowlands, T., treatment of metallic [iron] ores, or other metallic products, (P.), B., 756.
- Rowles, W. See Foster, J. S.
- Rowntree, L. G. See Greene, C. H.
- Rowsell, H. W., Janvier, W., and Shammy Co., Ltd., treatment of fabric to resemble wash leather, (P.), B., 651.
- Roxana Petroleum Corporation. See Carney, S. C.
- Roy, A. C., and Dutt, S., constitution of active principle of *Chita*, I., A., 1249.
- Roy, A. C. See also Mitter, P. C.
- Roy, B. C., catalytic preparation of alkylanilines. I., A., 1127.
- Roy, H. L., experimental contribution to the theory of equation of state for adsorbed substances, A., 13.
- Roy, M. B. See Fowler, G. J.
- Roy, R. M., and R  y, J. N., synthesis of substituted carbamides and thiocarbamides, A., 164.
- Royal Academy Committee, preliminary report of sub-committee on modern pigments and mediums, Feb. 1928, B., 679.
- Royer, G. G., thermostats, (P.), B., 659.
- Royle, A. G. See Royles, Ltd.
- Royles, Ltd., and Royle, A. G., heating or cooling liquids or fluids, (P.), B., 773.
- Royles, Ltd., Wilson, C., and Townend, E. H., apparatus for measuring the moisture content in wool and like fibrous materials, (P.), B., 782.
- Royster, P. H. See Kinney, S. P.
- Rozenblum  vna, S., and Weil, S., derivatives of bismuth di- and tri-phenyl, A., 189.
- Rozental, (Mlle.) J. See Weil, S.
- Rozieres, J. A. L. See Soc. Franc. de Centrifugation.
- Rozinek, A. See Szika, G.
- Ruark, A. E., simple derivation of the hydrogen energy levels in wave mechanics, A., 216.
- Zeeman effect and Stark effect of hydrogen in wave mechanics; force equation and virial theorem in wave mechanics, A., 566.
- statistical interpretation of quantum mechanics, A., 685.
- active nitrogen, A., 1065.
- wave-length shifts in scattered light, A., 1075.
- Rubber Latex Research Corporation, and Day, M. R., manufacture of stabilised [rubber] latex, (P.), B., 62.
- Rubber Latex Research Corporation, and Wescott, W. B., rubber compositions, (P.), B., 101.
- Rubber Latex Research Corporation. See also Wescott, W. B.
- Rubber Service Laboratories Co., accelerators for the vulcanisation of rubber, (P.), B., 377.
- Rubber Service Laboratories Co., and Hand, C. N., manufacture of acetaldehyde and acetaldehydeamine condensation products, (P.), B., 82.
- Rubber Service Laboratories Co. See also Horst, W. P. ter, North, C. O., and Scott, W.
- Rubel, W. See Astanin, P.
- Ruben, S., soldering material, (P.), B., 305.
- increasing the conductivity of metals, (P.), B., 821.
- Rubenbauer, H. See Kraut, H.
- Rubenschik, L., sulphate reduction by bacteria, with cellulose fermentation products as source of energy, A., 1403.
- Rubinstein, A. See Terentiev, A. P.
- Rubli, H. See Shoesmith, J. B.
- Rublot, S. See Burkser, E.
- Rubner, M., physiological significance of plant constituents with special reference to lignin, A., 802.
- Rudakov, K. I., biological reduction of mineral phosphate, A., 447.
- Rudat, A. See Jellinek, K.
- Rudb  ck, G. See Klingstedt, F. W.
- Rudberg, E., velocity distribution of photo-electrons produced by soft X-rays, A., 1173.
- Rudd, H. W., and Turner, E. E., competitive interaction of alkyl and aryl halides with magnesium, A., 504.
- Rudel, R., Neubauer method for determining the fertiliser requirements of soil, B., 538.
- Rudeman, L., manufacture of fuel briquettes [from peat], (P.), B., 595*.
- Ruder, W. E. See British Thomson-Houston Co., Ltd.
- Rudigier, E. A., and Standard Oil Development Co., refining of oils, (P.), B., 182.
- manufacture of asphalt, (P.), B., 594.
- Rudolfs, W., effect of salt on sludge digestion, B., 838.
- effect of certain trade wastes on sludge digestion, B., 838.
- Rudolfs, W., and Campbell, F. L., biology of sewage disposal; chemical studies on Imhoff tanks, B., 109.
- Rudolfs, W., and Zeller, P. J. A., odours and sewage sludge digestion. I. Effect of sea water on hydrogen sulphide production, B., 174.
- Rudolfs, W. See also Heukeleian, H.
- Rudolph, E. A. See Ruzicka, L.
- Rudy, R., metastable neon and argon, A., 1301.
- Rue, H. P., rapid corrosion test for gasoline, B., 662.
- R  chardt, E., loss of charge of positive rays and the influence of neighbouring metallic walls, A., 682.
- R  cker, K., measurement of the kinetic heat effect in air, hydrogen, and argon, A., 696.
- R  denberg, R. See Siemens-Schuckertwerke Ges.m.b.H.
- R  diger, M., and Diemair, W., [German] imported still wines, B., 542.
- R  diger, M., and Mayr, E., commercial gelatin and glue, B., 905.
- Ruedy, J. See McLennan, J. C.
- Ruedy, R. See McLennan, J. C.
- R  ger, H. See Ramann, E.
- R  hlemann, F., self-recording strength tester [for fibres], B., 10.
- R  lke, K., means for destroying animal pests, (P.), B., 240.
- Ruer, R., at. wt. of copper, A., 343.
- Ruer, R., and Kuschmann, J., changes in the specific gravity of copper and silver [after heat treatment], A., 942.
- reduction of the weight of powdered substances weighed in air to that in a vacuum, A., 976.
- R  sberg, F., Schmid, P., and Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., production of zirconium compounds, (P.), B., 748*.
- R  sberg, F. See also Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges.
- R  tgerswerke Aktien-Gesellschaft, working-up of fluorides containing silicic acid, (P.), B., 14.
- R  tgerswerke Aktien-Gesellschaft, and Kahl, L., production of labile bitumen emulsions, (P.), B., 594.
- R  tgerswerke Aktien-Gesellschaft, Abtg. Planawerke. See Kahl, L.
- R  tsche, G., removal of deposits, scale, or incrustations from metal, (P.), B., 21.
- Ruff, O., Ebert, F., and Luft, F., X-ray method for the investigation of substances adsorbed on charcoals, A., 471.
- Ruff, O., and Fischer, J., iridium fluorides, A., 382.
- Ruff, O., Fischer, J., and Luft, F., nitrogen trifluoride, A., 854.
- Ruff, O., and Hirsch, B., plasticity. IV. Plastic masses with silica, A., 838.
- Ruff, O., and Mautner, P., active charcoal; amorphous state, temperature stability, and relation of adsorptive power to the physical and chemical properties of the charcoal and the adsorbed molecules, A., 580.
- Ruff, O., and Riebeth, A., plasticity. V. Plastic masses of various inorganic substances and their ceramic utilisation, B., 749.
- Ruff, O., and Schneider, R., m. p. of calomel, A., 469.
- Ruggli, P., and Disler, A., anthraquinonylisatogen and other condensation products of anthraquinone-2-aldehyde, A., 67.
- Ruggli, P., and Marszak, L., acetylene derivatives. VII. Reaction of trichloroethylene with amines, A., 283.
- Rugh, J. M., and American Cyanamid Co., production of ferro-cyanides from crude calcium cyanides, (P.), B., 90.
- Ruhemann, M. See Simon, F.

- Ruhemann, S., and Lewy, K., blue oil of lignite producer tar and its relationship to the azuleno and the sesquiterpenes of oil of camomile, B., 147.
- Ruiz, C. See Guglielmelli, L., and Novelli, A.
- Rule, H. G., Hay, W., Numbers, (Miss) A. H., and Paterson, T. R., optical activity and polarity of substituent groups. VII. sec.- β -Octyl esters of *o*-, *m*-, and *p*-substituted benzoic acids, A., 221.
- Rule, H. G., Hay, W., and Paul, J., optical activity and polarity of substituent groups. VIII. Growing-chain effects and *ortho*-effect in benzoic esters, A., 765.
- Rule, H. G. See also Bretscher, E.
- Rule, W. See Wright, N. C.
- Rulon, W. B., formation of reconstructed carbonaceous fuel, (P.), B., 219.
- Rumford Chemical Works. See Fiske, A. H.
- Rumm, H. See Tausz, J.
- Rump, W. See Warburg, E.
- Rumpf, E., mercury spectrum tube, A., 388.
- Rumpf, K. See Wolfes, O.
- Runejelm, D. See Euler, H. von.
- Runge, W., and Bregat Corporation of America, agent for recovery of volatile solvents [petrol], (P.), B., 150.
- Runge, W., and International Coal Carbonization Co., carbonisation of coal, (P.), B., 439*.
- Runge, W. See also Internat. Combustion Engineering Corp.
- Runkel, R., recovery of cellulose from plants such as beechwood, bamboo, etc., (P.), B., 810.
- Runqvist, A., Arnfelt, H., and Westgren, A., X-ray analysis of copper-magnesium alloys, A., 1175.
- Runyan, W. B., metallurgical briquette and process of using it, (P.), B., 412.
- Rupe, H. [with Wirz, A.], phenylcamphor, A., 893.
- Rupe, H., and Giesler, L., aldehydes from acetylenic carbinols. II. β -8-Dimethyloctenaldehyde, β -methyl- β -tert.-butylacetaldehyde, and experiments with the acetylenic carbinol from acetophenone, A., 870.
- Rupe, H., and Guggenbühl, G. A., phenylhydroxylamine derivative of isatin-7-carboxylic acid, A., 72.
- Rupe, H., and Héritier, A., influence of constitution on the rotatory power of optically active substances. XIX., A., 296.
- Rupe, H., and Huber, A., hydroxymethylenealdehydes. II. Condensations with hydroxymethylenephylacetaldehyde, A., 64.
- Rupe, H., and Kambli, E., influence of constitution on the rotatory dispersion of optically active substances. XX., A., 297.
- Rupe, H., Messner, W., and Kambli, E., aldehydes from acetylenic carbinols. I. cyclohexylideneacetaldehyde, A., 640.
- Rupe, H., and Schäfer, K., catalytic reduction of unsaturated hydroaromatic compounds, A., 645.
- Rupe, H., and Stern, L., catalytic reduction of nitriles, A., 71.
- Rupe, H., and Vassiliev, N., apparatus for determining mol. wt. by the b. p. method, A., 985.
- Rupe, H., Wirz, A., and Lotter, P., aldehydes from acetylenic carbinols. III. Two dimethylhexenals, A., 1217.
- Rupe, H. See also Society of Chemical Industry in Basle.
- Rupp, E., titration of tin with "chloramine," A., 387.
- Rupp, E., polarisation of canal-ray light in weak electric fields. I. Hg-Radiation in a transverse field, A., 454.
- Rupp, E., angular distribution of slow electrons on passing through metal sheets, A., 809.
- Rupp, E., determination of manganese dioxide, etc., by Bunsen's method, A., 982.
- Rupp, E., diffraction of electrons at an optical grating, A., 1068.
- Rupp, E., determination of iodine value [of oils], B., 130.
- Rupp, E., assay of kalium sulphoguaiacolicum, B., 586.
- Rupp, E., preparation and constitution of hydrargyrum salicylicum [mercurisalicylic acid], B., 912.
- Rupp, E., and Lewy, F., determination of mercuric cyanide and oxycyanide, A., 860.
- Rupp, E., determination of free alkali in hypohalogenite solutions, B., 365.
- Rupp, G. A. See Snelling, W. O.
- Ruppert, A. See Busch, M.
- Ruppert, F. von. See Kircher, A.
- Ruppert, F. W. See Mayer, F.
- Ruppel, E. See Castille, A.
- Rusch, F., apparatus for determining rise in b. p., A., 469.
- Ruschmann, G., the hot-fermentation process [of manure] and "cdelmist," B., 870.
- Rusden, H., and Henderson, J., spoiss and the metals of the platinum group, B., 411.
- Rushton, A. L., and Lane, M. H., separation of butter fat from buttermilk and buttermilk whey; recovering butter from buttermilk, (P.), B., 865.
- Rushton, J. L., manufacture of artificial silk, (P.), B., 521*.
- Rusk, R. D., combination of hydrogen and oxygen by electric discharges, A., 1099.
- Rusk, R. D., resonance glow in a hydrogen discharge tube, A., 1294.
- Rusk, R. D., 29-volt critical potential of hydrogen, A., 1298.
- Russel, J. C., and McRuer, W. G., relation of organic matter and nitrogen content to series and type in virgin grassland soils, B., 168.
- Russell, A., occurrence of niccolite and ullmannite in Northumberland, and of serpierite in Killarney, Ireland, A., 149.
- Russell, A. W. See Brit. Hartford-Fairmont Synd., Ltd.
- Russell, D., and Happer, J. R., straining pulp for papermaking, etc., (P.), B., 331.
- Russell, E. J., influence of soil, season, and manuring on quality and growth of barley, 1926. V., B., 535.
- Russell, H. N., spark spectrum of oxygen (O II), A., 210.
- Russell, H. N., arc and spark spectra of titanium. I. Spark spectrum, Ti II. II. Arc spectrum, Ti I, A., 679.
- Russell, H. N., related lines in the spectra of the elements of the iron group, A., 680.
- Russell, H. N., series and ionisation potentials of the elements of the iron group, A., 682.
- Russell, H. N., Compton, K. T., and Boyce, J. C., spark spectrum of neon, A., 338, 565.
- Russell, H. N., and Lang, R. J., spectra of doubly- and trebly-ionised titanium (Ti III and Ti IV), A., 680.
- Russell, H. N., and Meggers, W. F., arc and spark spectra of scandium (Sc I and Sc II), A., 1.
- Russell, H. N. See also Compton, K. T.
- Russell, H. W., potential of photo-active cells containing fluorescent electrolytes, A., 1306.
- Russell, T. F., Goodrich, W. E., Cross, W., and Allen, N. P., [zinc] die-casting alloys of low m. p., B., 755.
- Russfabr. Kahl, liquid-air blasting cartridge, (P.), B., 141.
- Russig, F. See Oberschlesische Kokswerke & Chem. Fabr. Akt.-Ges.
- Russo, G., composition of the sexual organs. III. Free and combined amino-acids in the testicles of *Bos taurus*, A., 195.
- Russo, G., composition of the sexual organs. II. Amino-acids of the ovary of *Strongylocentrotus lividus* in various stages of the function cycle of the organ, A., 195.
- Rust, C. A. See McNally, W. D.
- Rutgers, A. J. See Wibaut, J. P.
- Ruth, R., and Aktiebolaget Sveriges Litografiska Tryckerier, colour-screen films, (P.), B., 349.
- Ruth Aldo Co., Inc., and Thenoz, R. A. J., apparatus for spinning solutions of cellulose esters and ethers, (P.), B., 890.
- Ruth Aldo Co., Inc. See also Bartélemy, H. L.
- Rutovski, B. N., and Busse, S. A., essential oil of *Artemisia maritima* not containing santonin, B., 547.
- Rutovski, B. N., essential oils of the *Thuja* species from the Crimea, B., 767.
- Rutovski, B. N., and Gussawa, K., Caucasian *Thuja* oils, B., 465.
- Rutovski, B. N., and Korolev, A., condensation of heptaldehyde with aromatic aldehydes, A., 1009, 1374.
- Rutovski, B. N., and Leonov, P. P., Russian fennel oil, B., 465.
- Rutovski, B. N., fennel oil from the Crimea, B., 768.
- Rutovski, B. N., Crimean anise oil, B., 836.
- Rutovski, B. N., and Vinogradova, I. V., occurrence of δ - β -pinene [δ -nopinenes], A., 1377.
- Rutovski, B. N., Russian mint oil, B., 465.
- Rutovski, B. N., hyssop oil from the Crimea, B., 768.
- Rutovski, B. N., constants of some Crimean and Caucasian essential oils, B., 768.
- Rutovski, B. N., essential oils from the berries of *Juniperus excelsa*, MB, B., 768.
- Rutovski, B. N., and Zürich, L., fennel oil, B., 768.
- Rutz, G. See Schmidt, E.
- Ruys, J. D., and Shell Co. of California, recovery of sulphuric acid from acid sludges, (P.), B., 472.
- Ruyssen, R., ionisation accompanying the thermal decomposition of ozone, A., 953.
- Ruzicka, A. See Sandera, K.
- Ruzicka, C., production of acetic anhydride, (P.), B., 255.
- Ruzicka, L., and Balas, F., higher terpeno compounds. XXXII. Addition reactions and the gentle permanganate oxidation of *d*-pimaric acid, A., 297.

- Ruzicka, L., Brneger, W., Seidel, C. F., and Schinz, H., carbon rings. X. Monocyclic diketones containing sixteen, eighteen, and thirty carbon atoms in the ring, A., 642.
- Ruzicka, L., Capato, E., and Huyser, H. W., higher terpene compounds. XXXIV. Sesquiterpene compounds of vetiver, West Indian sandalwood, and galangal oils, A., 425.
- Ruzicka, L., Huyser, H. W., and Seidel, C. F., higher terpene compounds. XXXI. Second double linking in *d*-pimaric acid, A., 425.
- Ruzicka, L., and Naef & Co., M., manufacture of farnesol, (P.), B., 427*.
- preparation of carbocyclic ketones with more than nine ring members, (P.), B., 598*.
- Ruzicka, L., and Rudolph, E. A., bile acids, A., 60.
- dehydrogenation with sulphur and dehydrogenating disruption with manganese dioxide and sulphuric acid, A., 63.
- higher terpene compounds. XXXIII. Sesquiterpene compounds from camomile and milfoil oils, A., 298.
- Ruzicka, L., Schinz, H., and Pfeiffer, M., carbon rings. XII. Preparation of methylated ketones containing fourteen, fifteen, and seventeen carbon atoms in the ring, A., 887.
- Ruzicka, L., Stoll, M., and Schinz, H., carbon rings. XI. Rings containing ten, eleven, twenty, and twenty-two carbon atoms, and formation of aliphatic together with cyclic ketones by decomposition of metal salts of polymethylenedicarboxylic acids, A., 887.
- Ryan, H., and Coyle, V. J. R., hydrolysis of *n*-butyl nitrate, A., 271.
- Ryan, H., and Cullinane, N., stilbene derivatives, A., 515.
- Ryan, H., Keane, J., and M'Gahon, J. C., 3-nitrodiphenylene oxide, A., 298.
- Ryan, H. D., treatment of shale, etc., (P.), B., 561.
- Ryan, L. W. See Barton, L. E.
- Ryan, R. W., and Lantz, E. A., effect of temperature on the rate of decomposition of nitrocellulose, B., 186.
- Ryan, W. J., jun. See Weir, J. W.
- Rychlewski, H., heat of combustion of living muscle, A., 1050.
- Rydbom, M. See Euler, H. von.
- Ryde, J. W., spectrum of carbon arcs in air at high current densities, A., 97.
- Ryde, J. W., Jacob, L., and Gossling, B. S., new type of discharge in neon tubes, A., 677.
- Rylands Bros., Ltd. See Atkins, E. A.
- Rymes, A. J., Nebraska clay, B., 263.
- Rys, L., bleaching of sulphite-cellulose, B., 478.
- S.
- Sä, A. See Stieповich, J.
- Saal, R. N. J., velocity of ionic reactions. I, II, and III, A., 248, 373, 484.
- Saar, R., calculation of dry weight of milk, B., 910.
- Saatjian, R. See Schmidt, A.
- Sabalitschka, T., nutrition of plants with aldehydes. VIII, A., 1289.
- Sabalitschka, T., and Haase, H., condensation of pyrrole with aliphatic ketones, A., 1382.
- Sabalitschka, T., and Harnisch, C., synthesis of formaldehyde and acetone from oxides of carbon and hydrogen or water by contact substances, A., 155.
- Sabalitschka, T., and Oehlke, K., adsorption from solutions and examination of the adsorptive power of medicinal charcoal, B., 839.
- Sabalitschka, T., and Tietz, H., oxidation of maleic and fumaric acids by potassium permanganate, A., 394.
- Sabetay, S., and Biéger, J., hydrogenation of acyclic terpenes, A., 1138.
- Sabetay, S., and Palfray, L., Δ^3 -cyclohexenol, A., 1130.
- Sabetay, S., and Sandulesco, G., ethylene ethers by cyclisation of chloromethyl ethers, A., 1140.
- Sabetay, S. See also Fournau, E., Palfray, L., and Schving, P.
- Sabin, A. B. See Sobotka, H.
- Saccardi, P., and Pieri, M., determination of mustard oil, B., 242.
- Sachanen. See Sachanov.
- Sachanov, A., setting point of petroleum and residues containing paraffin, B., 469.
- lubricating oils from Surakhani crude oil, B., 661.
- Sachanov, A., and Sherdeva, L. G., asphalt tars. I. Terminology, methods of testing, and standards. II. Characterisation of the asphalt tars of the U.S.S.R. [Russia], B., 114.
- manufacture of asphalt, B., 776.
- Sachanov, A., and Tilitschev, M. D., cracking of mazouts from heavy crude oils, B., 661.
- Sachanov, A., and Vassiliev, N. A., state of asphaltenes and resins in petroleum and its products, B., 78.
- oil-asphalts and tars, B., 776.
- Sachs, G., plasticity problems in metals, A., 111.
- Sachs, G., and Shoji, H., effect of compression and tension on brass crystals, A., 352.
- Sachs, G. See also Bauer, O., Göler, von, Karnop, R., Kuntze, W., and Masima, M.
- Sachs, J. See Hansen, M.
- Sachse, H. See Le Blanc, M.
- Sack, H., dispersion of conductivity, A., 1076.
- Sackett, W. G., Kezer, A., Ferguson, I. W., and Ward, J. C., effect of green manures and crop residues on soil reaction, B., 764.
- Sacks, J., and Davenport, H. A., inorganic phosphato content of resting mammalian muscle, A., 1398.
- Sadikov, V. S., difference of resistance to enzymes of treated and untreated collagen, B., 828.
- preparation of pure collagen and its utilisation for the determination of tannins in tanning materials, B., 828.
- Sadikov, V. S., and Guthner, R. A., composition of living organisms. II. Inorganic elements contained in frogs, A., 194.
- bergenin. I, A., 207.
- Sadikov, V. S., and Klebansky, A. L., hydrogenation of aniline under pressure in the presence of osmium and iridium, A., 282.
- Sadikov, V. S., and Mikhailov, A. K., hydrogenation of cyclic compounds under pressure in presence of osmium and other catalysts, A., 402.
- by-products of the hydrogenation of pyridine under pressure, A., 427.
- hydrogenation of fluorene under pressure in the presence of nickel or osmium with addition of cerium and thorium, A., 1235.
- products of the hydrogenation of quinoline under pressure in the presence of osmium and cerium, A., 1257.
- catalytic hydrogenation; interrupted hydrogenation of quinoline under pressure in the presence of osmium and cerium, A., 1257.
- Sadikov, V. S., and Shechegl'ska, M. K., composition of living organisms. I. Inorganic elements contained in cats, A., 194.
- Sadikov, V. S., and Yakimov, P. A., utilisation of tanning materials containing a large amount of soluble non-tans, B., 869.
- Sadler, A. See Goldschmidt, S.
- Sadler, W. R. See Schumacher, R. H.
- Sadtler, S. S., and Amiesite Asphalt Co. of America, treatment of Kentucky and similar rock asphalts in the making of paving material, (P.), B., 93.
- Sadtler, S. S., and Lathrop, E. C., treatment of natural silk, (P.), B., 564.
- Safety Fumigant Co. See Houghton, H. W.
- Saffron, J. See Tacke, B.
- Saffy, J. F., changes of a nickel-copper alloy in the vapour of superheated water at about 350–400°, B., 410.
- Sagaidachnui, A. F., medicinal muds of Crimean salt lakes, A., 1110.
- Sagajillo, M., changes in rubber on ageing, B., 681.
- Sagara, J., formation of hexone and purine bases during incubation of the hen's egg, A., 1396.
- Sagastume, C. A., and Solari, A., action of digestive juices on lactic organisms, A., 447.
- Sager, G. F., production of chromium surfaces for retarding the corrosion of nickel at high temperatures, B., 643.
- Sah, P. P. T., esters of orthoacetic acid, A., 394.
- Saha, J. M. See Chakravarti, G. C.
- Saha, M. N., origin of the nebular spectrum, A., 337.
- origin of the spectrum of the solar corona, A., 566.
- Saha, M. N., and Kichlu, P. K., extension of the irregular doublet law, A., 209.
- extension of the irregular doublet law to complex spectra, A., 677.

- Saha, M. N., Kothari, D. S., and Toshniwal, G. R., negatively modified scattering, A., 1070.
- Saha, M. N., and Mazumdar, K., horizontal comparison in the location of spectra of elements, A., 1296.
- Sahashi, Y., synthesis of the " β -acid" (2:6-dihydroxyquinoline-4-carboxylic acid) obtained by hydrolysis of crude oryzanin, A., 73.
- Sahyun, M., and Blatherwick, N. R., effect of intraperitoneal injections of insulin on the blood-sugar of well-fed rabbits, A., 799.
- physiological response of rabbits to insulin, A., 1403.
- Sahyun, M. See also Bischoff, F., and Blatherwick, N. R.
- Saida, T. See Ueno, S.
- Saiki, and Fujimaki, properties of vitamin-D, A., 1405.
- Saiki, S. See Shimoda.
- Saiko-Pittner, B., micro-Kjeldahl determination [of nitrogen], A., 1204.
- Saillard, E., coefficients of diastatic inversion, A., 156.
- Clerget inversion constants for the inversion [of sucrose] by invertase, B., 539.
- Saint-Antoine, L., dielectric constant of benzil, A., 688.
- St. John, A., X-ray studies of high-speed steel, B., 526.
- St. John, J. L., growth on synthetic diet containing small amounts of sodium, A., 668.
- simplified capillary-tube plastometer, B., 71.
- St. John's-Findlay, W., heat-exchange apparatus, including feed-water heaters or economisers, (P.), B., 72.
- Saito, S. See Kato, Y., and Wada, I.
- Sajitz, R., and Pott, E. (Chemische Fabrik Pott & Co.), production of cleansing and degreasing agents and emulsifying agents, (P.), B., 492.
- manufacture of sulphonic acids [wetting-out agents], (P.), B., 665.
- production of viscose, (P.), B., 853.
- Sajitz, R., and Pott, E. (Chemische Fabrik Pott & Co.), and Pospiech, F., spinning of viscose solutions, (P.), B., 85*.
- Sak, S., production of yeast, (P.), B., 726.
- Sakaguchi, K. See Takahashi, T.
- Sakamoto, Y. See Mitsukuri, S.
- Sakao, T., destruction of single crystals of aluminium by rolling, A., 1174.
- Saklatwalla, B. D., ferrous alloys, (P.), B., 451.
- copper-chromium ferrous alloys, (P.), B., 715.
- trend of engineering developments in steel, B., 787.
- Sakurada, I., hydrolysis of cellulose acetate by alkali, A., 598.
- mechanism of the hydrolysis of cellulose esters of the higher fatty acids, A., 598.
- hydrolysis of cellulose acetate during hydration, A., 599.
- celluloseglucolic acid, A., 873.
- Sakurada, I., and Nakashima, T., solubility of cellulose esters. I. and II. Solubility of cellulose acetate in acetone, A., 124.
- Sakurada, I. See also Kita, G.
- Sakurada, Y., carbothionic acids and esters. IV. Thioamides and thiohydrazides, A., 159.
- Sakurai, E. See Okada, S.
- Sakurai, S. See Suzuki, T.
- Sakurai, T., effect of parasympathetic poisons on the blood-sugar. II., A., 1279.
- Sala, C. See Charrier, G.
- Saladini, B., desulphurisation of lignite oils, B., 803.
- Salamon, M. S. See Bennett, C. T.
- Salat, C. See Witkowitz Bergbau- & Eisenhütten-Gewerkschaft.
- Salathe, A. See McCamish, F.
- Salazar, E. A., and Mieres, M. (Conte de), [electrolyte for] secondary battery or accumulator, (P.), B., 338.
- Saldau, P., and Schmidt, I., transformations of the β -phase in the copper-zinc system, A., 955.
- Saldau, P., and Semenov, V. N., hardness of chromium-nickel steels in relation to thermal treatment, B., 94.
- Sale, J. W. See Wilson, J. B.
- Salenius, C. G. T., continuous production of butter, (P.), B., 284.
- Salerni, E. M., treatment of gases or vapours with liquids or liquefiable mediums, (P.), B., 176, 734*.
- Salerni, P. M., and Metallbank & Metallurgische Ges. Akt.-Ges., apparatus for the distillation of carbonaceous materials, (P.), B., 805.
- Saletore, S. R. See Bhattacharya, R.
- Salgaller, H. See Liepatov, S.
- Salisbury, H. M. See Davis, C. E.
- Salkind, J. S., and Lubinskaja, F., 9-iodophenanthrene, A., 406.
- Salkind, J. S., and Rogovina, P. V., action of magnesium on *p*- and *m*-dibromobenzenes, A., 746.
- Salkind, J. S., and Zaboiev, S., ethereal oil of Siberian fir (*Abies Sibirica*), B., 547.
- Sallinger, H. See Ramann, E.
- Salman, H., slugging of refractory materials [fireclay], B., 91.
- Salmoiraghi, E. See Levi, M. G.
- Salmon, W. D., Guerrant, N. B., and Hays, I. M., existence of two active factors in vitamin-B complex, A., 556.
- Salmon-Legagneur, F. See Ramart, (Mme.) P.
- Salomon, H. See Karrer, P.
- Salt, H., theory of leather dyeing, B., 479.
- Salt Production Syndicate, Ltd. See Zalocostas, D. G.
- Salt Union, Ltd., Clayton, W., and Gibbs, W. E., preservation of hides and skins, (P.), B., 167.
- Salt Union, Ltd., Plumbridge, D. V., and Gibbs, W. E., concentration and evaporation of liquids, (P.), B., 507.
- Salter, W. T. See Cohn, E. J.
- Salvatore, E., pozzuoli solfataras gases, A., 1209.
- determination of steam in the fumarole exhalations of pozzuoli solfataras, A., 1210.
- Salvatore, E., and Squeo, A., determination of ferrous oxide in rocks, A., 727.
- Salvatore, E. See also Friedländer, J.
- Salzberg, P. L., and Marvel, C. S., hexa-*tert*.-butylethynylethane, A., 988.
- action of silver on diphenyl-*tert*.-butylethynylmethyl bromide, A., 1365.
- Salzberg, P. L., and Supniewski, J. V., [preparation of] β -bromothylphthalimide, A., 413.
- Salzberg, P. L. See also Supniewski, J. V.
- Samaan, K., determination of solubility of digitoxin, A., 564.
- Samarina, K. I. See Trifonov, N. A.
- Sambursky, S., intensity ratios for the doublets of the principal series of the alkali metals, A., 1295.
- Samdahl, B., new indicators, diveratrylidene and divanillylidene derivatives of cyclohexanone, A., 523.
- Samdahl, B. See also Volmar, Y.
- Samec, M., ultramicroscopic examination of starch sols, A., 15.
- plant colloids. XX. Behaviour of starch sols in the dark field. XXI. Distribution of phosphorus and nitrogen in starch grains, A., 927.
- Sameshima, J., effect of gelatin on the polymorphic transformation of mercuric iodide, A., 1190.
- Samesreuther, R., manufacture of plates or walls of vessels to be heated or cooled by passage of fluid through tubes, (P.), B., 41.
- Sammartino, U., insulin. III. Action of insulin on the formation of lactic acid in the liver, A., 331.
- Sampey, J. R., polarity of the carbon-halogen linking. I. Determination of relative rates for the acid hydrolysis of positive halogens. II. Kinetics of the acid hydrolysis of halogenophenols and halogenonaphthols, A., 57.
- Samsen, M., vitreous state and dilatation of glasses, A., 354.
- Samson, E. W. See McLennan, H. J. C.
- Samson, K., amount of fibrinogen and its relation to lability in plasma, A., 193.
- some clinically important blood analyses, A., 663.
- Samuel, G., and Piper, G. S., grey speck disease of oats, A., 1064.
- Samuel, J., manufacture of artificial sausage skins, (P.), B., 172*.
- Samuel, (Frl.) M., magnetic properties of cobalt, A., 1081.
- Samuel, R., non-polar linking and atomic refraction. I., A., 816.
- Samuel, T. See Norbury, A. L.
- Samwel, P. J. P. See Katz, J. R.
- Sanborn, N. H. See Kohman, E. F.
- Sandberg, E. See Myrbäck, K.
- Sandborn, L. T., and Bousquet, E. W., [preparation of] trimethylacetic acid, A., 617.
- Sandborn, L. T., and Marvel, C. S., local anaesthetics derived from β -piperidylcarbinol, A., 427.
- Sande, J. G., van der, simplified apparatus for micro-Kjeldahl determinations, A., 37.
- Sandell, E. B. See Kolthoff, I. M.
- Sander, and Nitsche, limit of photoelectric sensitivity of ammonium amalgams in the long wave-length region, A., 688.
- Sander, A., safe heating of autoclaves, B., 733.
- Sander, F. See I. G. Farbenind. A.-G.
- Sander, P. See Leuchs, H.

- Sander, W., and Goldschmidt Akt.-Ges., T., aluminium alloys, (P.), B., 271.
- Šandera, K., objective measurement of colour in sugar manufacture, B., 344.
- rate of dissolution of sugar, B., 344.
- Šandera, K., and Ruzicka, A., abnormal colour of raw [beet] sugar, B., 832.
- Šandera, K., and Zimmermann, B., ash determination in moist and refined sugars by electric conductivity, B., 540.
- Šandera, K. See also Staněk, V.
- Sanders, I. C. See Bryan, A. B.
- Sanders, M. T., countercurrent use of decolorising carbons, B., 735.
- Sanders, T. H., lubricating oils, (P.), B., 807.
- Sanderson, W. E., colouring of cold-cured rubber, B., 493, 681*.
- Sanderson & Sons, Ltd., A., and Sims, H. A., preparations for waterproofing wallpapers for rendering the same washable, (P.), B., 259.
- Sandiford, I. See Deuel, H. J., jun.
- Sandison, A. G. S., and Electroflo Meters Co., Ltd., [automatic] apparatus for the control of temperatures, (P.), B., 553.
- Sandonnini, C., action of acetylene on the oxides of carbon, A., 43.
- Sandor G.m.b.H., printing in greasy inks with gelatin printing surfaces, (P.), B., 24.
- production of printed transparent images, (P.), B., 349.
- Sandqvist, H., and Håk, W., binary system "bromural" - "pyramidone," A., 303.
- Sandreuter, H. See Rauch, W.
- Sands, L. See Anderson, L., and Upson, F. W.
- Sandulesco, G. See Sabetay, S.
- Sandved, K., ternary systems copper acetate-acetic acid-water and lead acetate-acetic acid-water at 25°, A., 131.
- Sandved, K. See also Gronwall, T. H., and La Mer, V. K.
- Sane, S. M., and Joshi, S. S., constitution of dinitro-*m*-cresols, A., 1130.
- Sanford, R. L., principles governing the choice and utilisation of permanent-magnet steels, B., 413.
- Sanfourche, A., and Blé, F., analysis of [natural] phosphates [according to the official French method], A., 858.
- Sanfourche, A., and Rondier, L., sulphonitrous and sulphonitric [acid] mixtures, A., 943.
- decomposition pressure of sulphuric acid containing nitrogen compounds, A., 1094.
- Sanigar, E. B., electrodeposition of silver with special reference to the use of sodium cyanide, B., 897.
- Sanin, A. A., anthraquinonedichlorodi-imine [1:4-dichloro-iminodihydroanthraquinone] and its compounds with amines, A., 763.
- Sanmann, F. P. See Overman, O. R.
- Sanna, A., velocity of hydrolysis of phenylsuccinimide derivatives, A., 26.
- Sanna, A., and Chessa, G., action of ethoxyacetyl chloride on magnesiyl pyrroles, A., 527.
- Sanna, A., and Macciotta, E., preparation of monohalogenophenyl-imides of dichloromaleic, tetrachlorosuccinic, and dibromosuccinic acids, and their molecular stability, A., 54.
- Sanna, A., and Repetto, (Signa.) G., preparation of halogenodiphenylsuccinamides, A., 54.
- Sano, H., effects of temperature and pressure on the explosibility of coal dust-air mixtures, B., 660.
- Sansaricq, M. L., centrifugal machine, (P.), B., 112*.
- Santiago, S., and West, A. P., chaulmoogroyl derivatives of lactates and salicylates, A., 1005.
- Santos, (Miss) I., and West, A. P., esters of α -linoleic acid tetrabromide from lumbang oil, A., 154.
- Sapadinski, M. B., colorimetric determination of ethylene chlorohydrin, A., 989.
- Sapper, E. See Weil, H.
- Saraga, E. See Charrier, G.
- Sarby, M. D., and Kemet Laboratories Co., Inc., electric vacuum furnaces, (P.), B., 577.
- Sargent, B. W. See Gray, J. A.
- Sarkar, P. B., rare earths, A., 32.
- Sarra, T., manufacture of gut strings, (P.), B., 364.
- Sarros. See Thompson, M. de K.
- Sartorius, F. See Tammann, G.
- Sasaki, N., and Nakamura, K., potential of solutions containing ferrous, ferric, and iodide ions and free iodine, A., 246.
- Becquerel effect, A., 255.
- Sasaki, R., nitrogenous constituents of the leaves of kuzu (*Pueraria hirsuta*, Matsum.), A., 1163.
- Sasaki, S., [influence of] electric charge of adsorbent in adsorption, A., 581.
- Sasaki, T. See Yazawa, T.
- Sasaoka, Y. See Nakamura, H.
- Sasnett, E. C., and Foley, Inc., C. B., electric furnace, (P.), B., 415.
- Sassaman, H. L. See Bethke, R. M.
- Sassler, H. See Schwarz, C.
- Sastri, B. N., concentration of enzyme solutions, A., 670.
- Sastri, B. N., and Norris, R. V., invertase. I. Preparation and purification of the enzyme, A., 673.
- Sastri, B. N., and Sreenivasaya, M., micro-method for the determination of enzyme activity, A., 670.
- Sastri, B. N. See also Sreenivasaya, R.
- Satchell, R. D. See Abbott, A. E.
- Satina, S., and Blakeslee, A. F., biochemical differences between sexes in *Mucor*. IV. Enzymes which act on carbohydrates and their derivatives, A., 563.
- biochemical differences between sexes in *Mucor*. V. Quantitative determination of sugars in (+) and (-) races, A., 928.
- Sato, G., adsorbability of the active substances of the posterior lobe of the pituitary on animal charcoal, A., 800.
- Sato, M., preparation of fuel oil by dry distillation of the calcium soap of soya bean oil. IV. Comparison with the magnesium soap, B., 179.
- preparation of fuel oil by dry distillation of the calcium soap of soya bean oil. VI. Reaction mechanism of thermal decomposition of the calcium and magnesium salts of some higher fatty acids, B., 179.
- Sato, M., and Ito, C., preparation of fuel oil by dry distillation of the calcium soap of soya bean oil. VII. Reaction mechanism of thermal decomposition of the calcium and magnesium salts of some higher fatty acids, B., 179.
- Sato, M., and Matsumoto, H., preparation of fuel oil by dry distillation of the calcium soap of soya bean oil. V. Hydrogenation of the distilled oil, B., 179.
- Sator, K. See I. G. Farbenind. A.-G.
- Sauer, H., "line" absorption of crystalline chrome alums, A., 1305.
- Sauerwald, A. See Müller, Adolf.
- Sauerwald, F., and Koreny, A., rate of dissolution of graphite in molten iron-carbon alloys, B., 407.
- Sauerwald, F., Michalsky, L., Kraiczek, R., and Neuendorff, G., hardening of carbon steels by deformation; effect of temperature, time, and structure, B., 572.
- Sauerwald, F., Nowak, E., and Juretzek, H., shrinkage in metals and alloys, A., 352.
- Sauerwald, F. See also Neuendorff, G.
- Saukov, A., manganiferous mineral from Kara-Tschaguir in Fergana, A., 267.
- Saunders, C. E., development of the wheat kernel, A., 1060.
- Saunders, F., purification of brucine, A., 634.
- ultra-violet light filter, A., 862.
- Saunders, K. H., Goodwin, H., and British Dyestuffs Corporation, Ltd., monoazo-dyes, (P.), B., 184*.
- Saunders, K. H. See also British Dyestuffs Corp., Ltd.
- Saunders, P. C., and Silverman, A., composition of ozone and the time-energy factor in ozone formation, B., 89.
- Sauter, E. See Magnus, A.
- Sautermeister, C., and Wilhelm, F., working-up acid resins obtained from the refining of mineral oil derivatives into neutral bitumens, (P.), B., 633*.
- Savage, J. C., [mechanical spray]-treatment of growing plants, etc., (P.), B., 312.
- Savage, W., and Savage-Rubber Corporation, vulcanised pitches; treatment of fatty still residues, (P.), B., 616.
- Savage-Rubber Corporation. See Savage, W.
- Savard, J., ultra-violet absorption curves of pulegone and isopulegone, A., 765.
- absorption curves of the pulegonenols, A., 812.
- ultra-violet absorption curves of terpene alcohols in relation to constitution, A., 1252.
- Savron, E. See Palladin, A.
- Sawai, I., and Morisawa, O., change of state on heating of silver mirrors deposited on glass, A., 147.
- shrinkage of glass threads during heating, A., 1085.
- Sawyer, F. See Amberg, S.
- Sawyer, R. A., one-metre vacuum spectrograph, A., 209.
- spectra of boron, A., 1297.

- Sawyer, R. A., and Humphreys, C. J., 29- and 30-electron-system spectra of arsenic and selenium, A., 1296.
- Saxton, B. See Skau, E. L.
- Sayago, G., Lastra, T. de V., and Vocos, C. M., blood-sugar level in pulmonary tuberculosis, A., 441.
- Sayce, L. A. See Robinson, P. L.
- Sayers, R. R., Fieldner, A. C., Yant, W. P., and Thomas, B. G. H., [physiological] effects of "ethyl gasoline" and its combustion products, B., 251.
- Saylor, C. H., [adsorption and crystallisation]; calcite and aragonite, A., 1319.
- Sázavský, V., methods of decolorising sugar solutions by means of active carbons, B., 620.
- clarification of sugar solutions for polarimetry, B., 831.
- Seagliarini, G., and Brasi, E., additive compounds of halides of bivalent metals with organic bases. V., A., 874.
- additive compounds of cadmium halides with hexamethylenetetramine. VI., A., 992.
- Scales, F. M. See Corby, R. L.
- Scanlan, R. W., calcium as a factor in soya bean inoculation, B., 459.
- Scanlin, J. R., and Texas Co., oxidation of hydrocarbons [paraffin wax], (P.), B., 473.
- Scarborough, H. A. See Blakey, W., and McCombie, H.
- Scarpa, O., and Denina, E., contact resistance between electrodes and electrolytes, A., 23.
- Scarritt, E. W. See Partridge, E. M.
- Schaaf, O. H. See Elbs, K.
- Schaarschmidt, A., manufacture of highly chlorinated paraffins, (P.), B., 224.
- Schaarwächter, K. See Tammann, G.
- Schade, H., and Marchionini, A., acid covering of the skin, A., 913.
- Schade, J. W. See Haushalter, F. H.
- Schadow, H. See Liebeschütz-Plaut, R.
- Schaede, R., occurrence of a red pigment in the root of the plane tree, A., 927.
- Schäfer, A. See I. G. Farbenind. A.-G., and Wieland, H.
- Schaefer, C., and Bormuth, C., short-wave infra-red absorption of artificial and natural sylvite, A., 1074.
- Schaefer, C., Matossi, F., and Dane, (Frl.) F., crystal structure of carbonates, A., 349.
- Schäfer, J., and Geigy, Société Anonyme, J. R., tanning of animal hides, (P.), B., 25.
- Schaefer, K., determination of water [in coal, tars, and oil] by distillation with xylene or tetrachloroethane, B., 557.
- Schäfer, K. See also Rupe, H.
- Schäfer, W., and Erz- & Kohle-Flotation Ges.m.b.H., flotation treatment of ores, coal, etc., (P.), B., 899.
- Schäfer, W. See also I. G. Farbenind. A.-G.
- Schaeffer, F. L. See Sherrill, M. L.
- Schaeffer, J. A., Calbeck, J. H., Crenshaw, J. R., and Eagle-Picher Lead Co., manufacture of red lead, (P.), B., 164.
- Schaeffer, J. A. See also Calbeck, J. H.
- Schaeffer, J. M., and Tilley, F. W., relation between chemical constitution and germicidal activity of alcohols and phenols, A., 795.
- Schäffner, A. See Waldschmidt-Leitz, E.
- Schärer, A. See Ephraim, F.
- Schafer, E. R., and Peterson, C. E., pulping flax straw. IV. Hydrolysis and delignification with alkaline reagents, B., 476.
- Schafer, J., purifying separator for liquids, (P.), B., 216.
- Schaffer, N. K. See Tartar, H. V.
- Schafmeister, P., and Zoja, R., influence of manganese and the rate of cooling on the separation of ferrite [in steels], B., 266.
- Schairer, W. See Küster, W.
- Schaller, P. See Fraenkel, W.
- Schaller, W. T., kernite, A., 1349.
- Schalscha, K., and Landé, K., determination of bile acids in the serum in hepatic disease, A., 343.
- Schamberger, F. See Peczenik, C. E.
- Schames, L., reciprocal attraction and repulsion of gas molecules and their bearing on the theory of internal friction, A., 355.
- Schantz, C. F., recovery of metals [copper, zinc, etc.] from iron pyrites and similar ores and from liquors containing them, (P.), B., 308.
- Schaper, I., sulphide phosphors, A., 686.
- Sehapi, B., measurement of sizing strength of paper, B., 852.
- Schapiro, A. M. See Uglov, W. A.
- Schapiro, E. See Fringsheim, H.
- Schapiro, F. S. See Igarischev, N. A.
- Scharf, K., photo-electric effect with sub-microscopic drops, A., 932.
- Scharfenberg, C. See Ansehütz, R.
- Scharnow, B. See Kussmann, A.
- Scharrer, K., iodine problem and exophthalmic goitre prophylaxis from the point of view of agricultural chemistry, A., 667.
- biochemical studies of iodine, A., 1152.
- decomposition of hydrogen peroxide in soils, B., 458.
- Scharrer, K., and Schwaibold, J., iodine as a biogenic element. XV. Animal organs and products and their iodine content. XVI. Occurrence of iodine in fodders and manures, A., 787.
- iodine as a biogenic element. XVIII. Liberation of iodine by soils, A., 1407.
- Scharrer, K., and Strobel, A., increase of the iodine content of plants after application of iodine, A., 1407.
- Scharrer, K. See also Strobel, A.
- Scharvin, V. V., and Pakschver, A. B., oxidation of organic dyestuffs and of cellulose on exposure to light, B., 225*.
- oxidation of cellulose on exposure to light. II., B., 888.
- Schattner, F. See Rose, A. R.
- Schaum, C., and Fletcher Works, Inc., centrifugal, (P.), B., 430.
- Schaum, K., heterochromic photometry of body colour, A., 226.
- hylotropic-isomeric forms. IV., A., 824.
- Sohay, G. See Ootuka, H., and Póányi, M.
- Scheede, A. See Hettich, A.
- Scheele, C. von, and Svensson, G., determination of starch in potato pulp, B., 910.
- Scheer, K., lipase in saliva, A., 1047.
- Scheff, G., reducing power of chemically pure glycuronic acid, A., 618.
- intermediate metabolism of rats infected with trypanosomes, A., 1396.
- Scheffer, F. See Blanck, E.
- Scheffer, F. E. C., and Korveze, (Miss) A. E., simultaneous reactions of the type $A \rightleftharpoons B \rightleftharpoons C$, A., 372.
- Scheffer, F. E. C., and Went, N. B. van, action of bromine on formaldehyde, A., 484.
- Scheffer, F. E. C. See also Meyer, G.
- Scheffer, L., fate of foreign fats in the organism, A., 1154.
- Scheibe, G., ultra-violet absorption of iodides in solution, A., 458.
- light absorption in solution and the transition between different types of combination, A., 1320.
- Scheibe, G., and Neuhäusser, A., rapid determination of alloying constituents in iron by spectrographic analysis, B., 930.
- Scheiber, J., principles of polymerisation, A., 1100.
- signification of negative catalysis in the formation of protective coatings, B., 99.
- differentiation of fatty oils by the [Jäger] "flow method," B., 577.
- Scheiber, J., and Noack, W., preparation of a new type of shellac substitutes, (P.), B., 276*.
- Scheidegger, P. See Society of Chemical Industry in Basle.
- Scheidhauer & Giessing Akt.-Ges., and Ackermann, H., [press table for] the manufacture of bricks, (P.), B., 194.
- Scheidhauer & Giessing Akt.-Ges. See also Ackermann, H.
- Scheidt, E. O., sterilising clear and turbid liquids [foods] by means of ultra-violet rays, (P.), B., 106, 501*.
- Scheidt, K. J., aluminium hydroxide sol, A., 948.
- Scheifele, B., general interpretation of the drying processes of fatty oils, B., 99.
- Schein, M., fine-structure and Zeeman effect for the mercury resonance line, A., 340.
- Scheithauer, W., regeneration of rubber, (P.), B., 650.
- Schelig, G. See Herz, W.
- Scheljagin, V. W. See Nastukov, A. M.
- Scheller, E., arsenising of organic compounds, (P.), B., 140.
- Scheller, E. See also Metallbank & Metallurgische Ges. A.-G.
- Scheller, R., lactic acid content of pathological discharges, A., 321.
- Schemjakín, F. M., structure of benzene and the alicyclic hydrocarbons, A., 1365.
- Schemjakín, F. M. See also Dunin, M. S.
- Schenck, E. G. See Kossel, A.
- Schenck, F. See Stoermer, R.
- Schenck, H., application of theoretical chemistry to some of the more important processes in the production of steel, B., 266.
- Schenck, M., and Kirchhof, H., m. p. of the chloroplatinates of monomethyl- and *as*-dimethyl-guanidine, A., 50.
- bile acids. XVIII., XIX., and XXI., A., 639, 764, 1134.
- bile acids. XX. Nitrogenous derivatives of bilianic acid, A., 1007.

- Schenck, P. D., and Duriron Co., Inc., corrosion-resisting alloy, (P.), B., 57.
- Schenck, R., equilibria in the reduction, oxidation, and carburization of iron. III, IV., and V., B., 16, 369.
- Schenck, R., equilibria in the system iron-carbon-oxygen, B., 713.
- Schenck, R., and Dingmann, T., equilibria in the reduction, oxidation, and carburization of iron. VI., A., 844.
- Schenck, R., and Finken, H. [with Michaelis, P., and Pleuger, F.], malononitrile and malononitrile condensations, I., A., 1123.
- Schenck, R., and Finken, H. [with Michaelis, P., Pape, K., and Pleuger, F.], malononitrile and malononitrile condensations. II., A., 1124.
- Schenck, R., and Verein Stahlwerke Akt.-Ges., elimination of phosphorus from pig iron, (P.), B., 161.
- Schenk, D., examination of grape juice (must) and improvement of wines, B., 207.
- Schenkel, K., manufacture of artificial stone, (P.), B., 750.
- Schenkel, M. See Siemens-Schuckertwerke G.m.b.H.
- Schenzer, K. See Hartmann, P.
- Scherbak, H. See Eddy Co., Ltd., E. B.
- Scherbaum, J. B. C., pulverising or grinding mill, (P.), B., 112*, 144*.
- Scherer, R., influence of cobalt, vanadium, and manganese on the properties of tool steels, B., 17.
- Scherer, R. See also Moos, M. von.
- Schering, H., Goldberg spectrodensograph, B., 429.
- Scheringa, K., benzidine test for blood, A., 1046.
- Schoring-Kahlbaum Akt.-Ges., manufacture of alkyl β -halogenoethyl ketones, (P.), B., 398.
- Schoring-Kahlbaum Akt.-Ges., manufacture of 2-aminopyridines substituted in the 5-position by iodine, (P.), B., 547.
- Schoring-Kahlbaum Akt.-Ges., manufacture of 4-alkylquinolines and derivatives thereof, (P.), B., 730.
- Schoring-Kahlbaum Akt.-Ges., manufacture of 5-iodo-2-aminopyridine, (P.), B., 837.
- Schering-Kahlbaum Akt.-Ges., and Schoeller, W., manufacture of mineral waters containing iron, (P.), B., 547.
- Scherlin, S. M., and Epstein, G., β -substituted alkylarsinic acids and their derivatives, A., 1231.
- Schermann, R., fine grinding of corn, (P.), B., 106.
- Schermerhorn, L. G. See Nightingale, G. T.
- Schern, K., disturbance of sugar metabolism in trypanosomiasis and spirochaetosis, A., 544.
- Scherpe, R., determination of nicotine in sprays, B., 684.
- Schertel, L., the red lead question, B., 492.
- Schertel, L., Lütty, W., and Goldschmidt Akt.-Ges., T., production of solid, finely-divided material [litharge], (P.), B., 493*.
- Scherz, K. See Zetzsche, F.
- Scherzer, C. L. See Swiatkowski, H.
- Schestakov, A. See Domontovitch, M.
- Schestakov, G., determination of lead as chromate in Babbit metal, and determination of copper by Walker and Whitman's method, B., 675.
- Schestakov, P., preparation of photographic developers, (P.), B., 349*.
- Scheunert, A., vitamin content of technical soya-phosphatide preparations used in margarine factories, B., 66.
- Schiapparelli, C., and Bussino, G., chemical nature of vegetable tanning, B., 204.
- Schiapparelli, C., and Careggio, L., chemistry of combined tanning, B., 204.
- Schicht Aktien-Gesellschaft, G. See Grün, A.
- Schiektanz, S. T. See Keyes, D. B.
- Schidlof, A. See Berthoud, A.
- Schidrowitz, P., and Vultex, Ltd., manufacture of rubber, (P.), B., 794*.
- Schiebold, E., deformation structures of aluminium crystals and crystal masses and their reciprocal relations, A., 225.
- Schiebold, E., fine structure of the feldspars, A., 821.
- Schiebold, E. See also Le Blanc, M.
- Schieckenthal, G., determination of nickel in soils, B., 27.
- Schieferwerke Ausdauer A.-G., production of hexamethylenetetramine, (P.), B., 665.
- Schiemann, G., and Bolstad, E., aromatic compounds containing fluorine. II. 4:4'-Difluoro-3-aminodiphenyl and 3:4:4'-trifluorodiphenyl, A., 878.
- Schiess, H. J., Boitel, A. C., Zähler, E., Boitel, A., and Schiess, L. (Zähler & Schiess & Co.), and Subox A.-G. Electro Chem. Fabr. Metall- & Hüttenprodukte, lead coating of articles, (P.), B., 936.
- Schiess, L. See Schiess, H. J.
- Schiff, E. See Wilder, F. L.
- Schikorr, G. See Deiss, E.
- Schild, E. See Eibner, A.
- Schildwächter, H. See Berl, E.
- Schiller, G. W., and Schwartzberg, B., absorption of vegetable tannins by lido powder under different conditions, B., 795.
- Schilov, E., mercury method of calibrating microburettes, A., 143.
- Schilov, N. A., and Nekrassov, B. V., adsorption and chemical nature of some organic compounds, A., 358*.
- Schilov, N. A., and Tschmutov, K., adsorption phenomena in solutions. XI., A., 581.
- Schilt, W., manufacture of secondary amines, (P.), B., 597.
- Schilz, W. E. See Hönigschmid, O.
- Schimmel, F. See Agde, G.
- Schimmel & Co., isooctenol, A., 410.
- Schimmel & Co., higher aldehydes, (P.), B., 561.
- Schimmel & Co., essential oils, B., 586.
- Schimmel & Co., adulteration of essential oils and natural perfumes, B., 587.
- Schimmel & Co., determination of total geraniol in Java citronella oil, B., 587.
- Schimmel & Co., synthetic menthol, B., 691.
- Schindemeiser, J., compositions of matter containing esters or ethers of carbohydrates, (P.), B., 237.
- Schindler, H. See Rosenmund, K. W.
- Schindler, H. K., linear or logarithmic calculation of colour in malt analysis, B., 500.
- Schindler, W., microscopical examination of fat emulsions used in the leather trade, B., 378.
- Schindler, W., problems of fat-liquors, B., 763.
- Schindler, W., and Klanfer, K., migration of the masked sulphate groups in chrome alum liquors, B., 533.
- Schindler, W., chromium-fatty acid compounds and their occurrence in leather, B., 650.
- Schinz, H. See Ruzicka, L.
- Schmidt, E. See Güntelberg, E.
- Schirm, A., and Wester, D. H., fatal case of poisoning by scopolamine *per os* and by injected potassium cyanide; location of the injected cyanide, etc., A., 920.
- Schirm, E., the "mango" and its tannin, B., 277.
- Schirmacher, K. See I. G. Farbenind. A.-G.
- Schirmann, M. A., electrification produced by friction between gases and solid surfaces. I., A., 352.
- Schirr, P., apparatus for drying textile goods in stages, (P.), B., 85.
- Schischkin, V., and Gernett, H., theory of electrodeposition of chromium from aqueous solutions of chromic acid, A., 489.
- Schischokin, V. P., determination of the composition of the solid phase in equilibrated systems, A., 132.
- Schischokin, V. P., analytical and graphical methods of investigating complex equilibrium systems, A., 132.
- Schischokin, V. P., generalisation of the method of residues; determination of hydration of solid phases in the equilibrium of systems, A., 844.
- Schittenhelm, A., and Eisler, B., vitamin content of barley germ (malt dust), A., 1405.
- Schittenhelm, A., Erhardt, W., and Warnat, K., mineral metabolism in anaphylaxis, A., 543.
- Schittenhelm, A., and Warnat, K., anaphylaxis in man and animals. VII. Potassium and calcium content of the blood and organs of the rabbit and dog and its changes in sensitised and anaphylactic animals, A., 1273.
- Schittenhelm, A., and Warnat, K., production of carbonyldi-carbamide by oxidation of uric acid and allantoin, and its metabolism, A., 530.
- Schitzkowski, G. See Körber, F.
- Schivazappa, M. See Fester, G.
- Schladebach, H. See I. G. Farbenind. A.-G.
- Schlapp, R., Stark effect of the fine structure of hydrogen, A., 806.
- Schlatter, H. See Waldschmidt-Leitz, E.
- Schlaugk G.m.b.H., M., manufacture of [colourless] sodium sulphide, (P.), B., 261.
- Schlecht, E., indican in examination of urine, A., 542, 789.
- Schlecht, L. See I. G. Farbenind. A.-G.
- Schleede, A., and Hettich, A., crystal group of pentaerythritol; the tetrahedral carbon atom, A., 694.
- Schleede, A., and Schneider, E., tetrahedral carbon atom and crystal structure of pentaerythritol, A., 224.
- Schleede, A. See also Hettich, A.
- Schlegel, E., evaporator with horizontal tubes, (P.), B., 41.

- Schlegel, *E.*, horizontal evaporator, (P.), B., 879.
 Schlegel, *K. W.* See Thomas, *W. A.*
 Schlegel, *W.* See I. G. Farbenind. A.-G.
 Sohleicher, *R.* See Windisch, *W.*
 Schleifstein, *M. L.*, graphitisation of petroleum coke; relative catalytic effect of various metals, B., 432.
 Sehlemmer, *F.* See Dietzel, *R.*
 Schlemmer, *J.*, new modification of the Clerget method for determining sucrose, B., 831.
 Schlenk, *R.*, kilning of malt, B., 870.
 Schlenk, *W.*, and Bergmann, *E.*, alkali [metal]-organic compounds. I. Products of addition of alkali metals to olefinic compounds. II. New facts in the stereochemistry of carbon. III. New type of compound with bivalent carbon. IV. Addition of sodium to carbon-nitrogen and to nitrogen-nitrogen double linkings. V. Experiments with triphenylmethyl and sodium triphenylmethyl. VI. Diarylketone-alkali metal additive compounds. VII. Some scissions using alkali metals, A., 1031.
 Schlenk, *W.*, and Karplas, *M.*, constitution and synthesis of rubiceno, A., 1235.
 Schlesinger, *A.* See Pollak, *J.*
 Schlesinger, *G.* See Weiss, *R.*
 Schlichenmaier, *H.* See Wislicenus, *W.*
 Schlichtenmaier, *W.* See Meisenheimer, *J.*
 Schlieper, *C.*, biological significance of salt concentration in natural waters, A., 1051.
 Schliephake, *E.*, nitrogen retention on feeding with ammonium salts, A., 199.
 Schliephake, *O.* See I. G. Farbenind. A.-G., and Wilke-Dörfurt, *E.*
 Schlitt, *J. L.*, Dennis, *W.*, and Air Reduction Co., Inc., refrigeration [in the liquefaction of gases], (P.), B., 697.
 Schloemann Aktien-Gesellschaft, pilger mills, (P.), B., 39.
 Schloemer, *A.* See Benrath, *A.*
 Schloesing, *T.*, removal of nicotine from tobacco without destroying its aroma, (P.), B., 548*.
 Schlösser, *P.* See Silesia Verein Chem. Fabr.
 Schloffer, *F.* See Zinti, *E.*
 Schloss, *A.*, manufacture of formic acid, (P.), B., 596.
 Schlubach, *H. H.*, and Eisner, *H.*, new *k*-fructose anhydride, A., 1221.
 Schlubach, *H. H.*, and Schröter, *G. A.*, preparation of glucosides of the α -series; crystalline α -methylfructoside, A., 873.
 Schlubach, *H. H.*, Stadler, *P.*, and Wolf, *I.*, β -acetylchloroglucose. II., A., 398.
 Schlüter, *H.*, standardisation of oil testing, B., 325.
 standardisation of methods of testing oil; measuring flasks for Engler's viscosimeter, B., 491.
 Schlumberger, *E.*, explosion risks in the industrial preparation of absolute alcohol from sulphite spirit, B., 47.
 Schlumberger, *E.* See also Königsberger Zellstoff-Fabr. & Chem. Werke Koholyt A.-G.
 Schlundt, *H.* See Linhorst, *E. F.*
 Schmaeling, *V.*, calculation of the energy and the parameter of a lattice of the corundum type, A., 464.
 Schmalfluss, *H.*, melanin formation, A., 329.
 Schmalfluss, *H.*, and Barthmeyer, *H.*, is diacetyl a product of [bacterial] metabolism? A., 924.
 Schmalfluss, *H.*, and Barthmeyer, *H.* [with Brandes, *H.*], formation of pigments in plants, A., 207.
 Schmalfluss, *H.*, and Peschke, *W.*, exclusion of atmospheric oxygen by superimposed surface layers, A., 1209.
 Schmalfluss, *H.* See also Jantzen, *E.*
 Schmelev, *L. A.*, method of determining free aluminium oxide in silicate mixtures and its application to the study of clays, B., 895.
 Schmelkes, *F. C.*, measurement of resistance of vulcanised rubber to penetration of benzene and other combustible substances, B., 377.
 Schmelzer, *A.* See Ballauf, *F.*
 Schmerwitz, *G.*, connexion between positive rays and the abrupt change of potential at the cathode for the thermal emission from an oxide cathode; method of obtaining the energy of emission, A., 572.
 Schmick, *H.* See Grüss, *H.*
 Schmid, *A.*, nitroglycerin washing process, B., 37.
 denitration of waste acids under diminished pressure, B., 122.
 Schmid, *A.*, and Meissner, *J.*, uninterruptedly washing nitroglycerin, nitroglycol, and like esters, (P.), B., 770.
 Schmid, *E.*, fatigue in single crystals [of metals], B., 304.
 Schmid, *E.*, and Wassermann, *G.*, hardness of tellurium crystals, A., 466.
 mechanical twinning in zinc crystals, A., 824.
 Schmid, *E.* See also Czochralski, *J.*
 Schmid, *H.*, painting and preserving stone, wood, metal, etc., in buildings and sculptures, (P.), B., 531.
 Schmid, *H.* (Wien). See Abel, *E.*
 Schmid, *J.*, and Glorius, *E.*, detection of sugar in urine, A., 1273.
 Schmid, *J.* See Battagay.
 Schmid, *L.*, and Bilowitski, *G.*, plant sterols, A., 752.
 Schmid, *L.*, Ludwig, *E.*, and Pietsch, *K.*, cryoscopic mol. wt. determination of glycogen in liquid ammonia, A., 707.
 Schmid, *L.*, and Waschkau, *A.*, constitution of the anthochlorin of the yellow dahlia, A., 927.
 Schmid, *L.*, Waschkau, *A.*, and Ludwig, *E.*, alkali compounds of polyhydric alcohols and carbohydrates, A., 734.
 Schmid, *L.*, and Zentner, *M.*, methylation of starch, A., 742.
 dehydrogenation of sitosterol, A., 752.
 Schmid, *M. R. J.*, production of refined sugar, (P.), B., 541.
 Schmid, *P.*, production of zirconium oxide, and constitution of some zirconium salts, A., 33.
 Schmid, *P.* See also Rüsberg, *F.*
 Schmid, *R.*, bands of the third positive group in nitrogen, A., 931.
 Schmid, *R.* See also Pogány, *B.*
 Schmidding, *W.*, preparation of lacquers from tung oil, (P.), B., 164.
 production of a rust-preventing layer on iron and steel, (P.), B., 788.
 Schmidinger, *K.*, manufacture of lacquers, (P.), B., 376.
 Schmidlin, *R.* See Siebert, *O.*, and Thiess, *K.*
 Schmidt, *A.*, detection and determination of starch in margarine, B., 728.
 Schmidt, *A.*, and Saatcian, *R.*, effect of insulin on the morphological and chemical condition of the blood, A., 331.
 Schmidt, *A.* (Darmstadt). See Berl, *E.*
 Schmidt, *C. C.*, dielectric constants of four electrolytes as given by the Carman electrometer method, A., 106.
 Schmidt, *C. C.* See also Carman, *A. P.*
 Schmidt, *C. L. A.* See Kirk, *P. L.*
 Schmidt, *Erich*, Rutz, *G.*, and Trénel, *M.*, preparation of partly acylated chloronitrotrimethylene glycols, A., 504.
 Schmidt, *Erich*, and Rutz, *G.*, preparation of nitro- and chloro-nitro-olefines, A., 1352.
 Schmidt, *Eugene*. See Geiger, *E.*
 Schmidt, *E. A. W.* See Rona, *E.*
 Schmidt, *E. G.*, inactivation of urease, A., 923.
 Schmidt, *E. V.* See Osterberg, *A. E.*
 Schmidt, *F. W.*, and Green, *W. M.*, hydraulic classifier and separating process, (P.), B., 74.
 Schmidt, *Hans*, alkali periodide salts with organic neutral components, A., 893.
 Schmidt, *Harry*. See Treibs, *W.*
 Schmidt, *Helmuth*. See Skaupey, *F.*
 Schmidt, *Herbert*. See Ostwald, *Wolfgang*.
 Schmidt, *Hermann*, regenerative ovens or furnaces, (P.), B., 551.
 Schmidt, *Hermann*, and Liesegang, *W.*, is the hearth chamber of a Siemens-Martin furnace a black body for optical pyrometry? B., 713.
 Schmidt, *H. H.*, photochemistry of silver halides. III. Relation between the gravimetrically determined silver and the lowering of sensitivity caused by dichromate-sulphuric acid reagent with subsequent chemical and primary and secondary physical development, A., 1340.
 Schmidt, *H. H.*, and Pretschner, *F.*, photochemistry of silver halides. I. Gravimetric determination of excess silver in photographic layers, B., 625.
 photochemistry of silver halides. II. Decomposition of photographic layers with neutral, acid, and alkaline hydrogen peroxide, and with ammoniacal ammonium sulphide, B., 625.
 Schmidt, *I.* See Saldau, *P.*
 Schmidt, *J. H.*, and Bakelite Corporation, preparation of phthalic anhydride-glycerol resins, (P.), B., 493.
 Schmidt, *J. M.*, electrical conductivity of beryllium chloride and bromide in some anhydrous organic solvents, A., 244.
 Schmidt, *Karl*, preventing the weakening of vegetable fibres in the production of aniline black, (P.), B., 709.
 Schmidt, *Kurt*. See Chem. Fabrik auf Aktien (vorm. E. Schering).
 Schmidt, *L.*, and Westinghouse Electric & Manufacturing Co., apparatus for the production of artificial jewels or precious stones, (P.), B., 125.
 Schmidt, *M. P.* See Kalle & Co. A.-G.

- Schmidt, O., theory of sorption; mechanism of heterogeneous catalysis, A., 582.
- Schmidt, P., determination of traces of lead, A., 1347.
- Schmidt, R., detection and determination of small quantities of manganese in water, B., 110.
- Schmidt, Reinhold, artificial ageing of turbine oils, B., 918.
- Schmidt, Richard. See Eggert, John.
- Schmidt, Rolf. See Evers, F.
- Schmidt, R. E., and Grasselli Dyestuff Corporation, splitting-off sulpho-groups from anthraquinonesulphonic acid derivatives, (P.), B., 152*.
- manufacture of hydroxyaryl-*p*-diaminoanthrarufin compounds [8-diamino-2-*p*-hydroxyphenylanthrufin-6-sulphonic acids], (P.), B., 153*.
- Schmidt S., reaction between toxin and antitoxin and the significance for the immune action of serum, A., 330.
- Schmidt, S. See also Steinkopf, W.
- Schmidt, Walther, constitution of magnesium alloys, B., 56.
- Schmidt, Werner, calcium fixation capacity of normal and rachitic cartilage, A., 1051.
- Schmidt, Werner. See also Cassella & Co. G.m.b.H., L., Hoppe-Seyler, F. A., and I. G. Farbenind. A.-G.
- Schmidt, W. A., and International Precipitation Co., electrical [gas] precipitator, (P.), B., 22.
- Schmidt, W. A. See also Beck, K.
- Schmidt-Nielsen, S., distribution and solubility of gases in fats, A., 230.
- Schmihing, M. See I. G. Farbenind. A.-G.
- Schmitt, A. T. See Mayer, F.
- Schmitt, F. See Assoc. Parisienne pour l'Ind. Chim. and Desparmet, E.
- Schmitt, Frida. See Mannich, C.
- Schmitt, F. O., and White, H. L., phosphate content of renal capsular fluid in *Necturus*, A., 666.
- Schmitt, K. F. See Egger, F.
- Schmitt, W., theory of the colloid reactions of the cerebrospinal fluid, A., 477.
- Schmitt-Krahmer, C. See Mangold, E.
- Schmitz, E., and Pollack, H. J., avitaminosis-B and the suprarenal gland. II. Behaviour of pigeons deprived of vitamin-B towards adrenaline and choline, A., 926.
- Schmitz, E., and Scholtyssek, H., amino-acid determination in urine by Folin's colorimetric method, A., 914.
- Schmitz-Dumont, O., and Motzkus, E., internally complex salts of the di-indyl- and dipyrlyl-methenes. I. Constitution of Kunz's di-indylmethene-copper compound, A., 529.
- Schmitz-Dumont, O. See also Rheinboldt, H.
- Schmuck, A., nitrate reduction by plant roots, A., 1290.
- nitrate utilisation by plants. I. Régime of nitrate nitrogen under natural conditions of plant development, B., 135.
- alkaloids of tobacco, B., 690.
- Schmuck, A., and Balabucha-Popzowa, chemical characteristics of tobaccos of various districts (1925 season), B., 343.
- Schmucker, T., narcosis of carbon dioxide assimilation and the bubbling method, A., 801.
- Schmutzler, E., influence of disodium hydrogen phosphate on gaseous exchange, A., 1389.
- Schnabel, R., Jacobsen, J., and Excelsior Feuerlöschgeräte Akt.-Ges., process and apparatus for producing foam, (P.), B., 840.
- Schnabel, R., and Minimax Aktien-Gesellschaft, generation of foam, (P.), B., 492.
- Schneck, A., detection of added water in sour milk by determination of the refractive index, B., 942.
- Schneeberger, G. See Schneeberger, L.
- Schneeberger, L., Schneeberger, R., and Schneeberger, G., material for treating vegetable fibres for use in the manufacture of paper, (P.), B., 11.
- Schneeberger, R. See Schneeberger, L.
- Schneible, J., Ingram, B. S., and Schneible Trust, distillation apparatus, (P.), B., 507.
- Schneible Trust. See Schneible, J.
- Schneider, A., and Konrad, W., causes of varying sp. gr. of gas-works benzol, B., 148.
- Schneider, A. See also Battegay, M.
- Schneider, Adolf. See Deutsch-Luxemburgische Bergwerks- & Hütten-A.-G.
- Schneider, C. See I. G. Farbenind. A.-G.
- Schneider, E., [non-]effect of X-rays on decomposition of starch, A., 336.
- Schneider, Erich. See Hettich, A., and Schleede, A.
- Schneider, G. W., resistance change of single crystals of bismuth in a longitudinal magnetic field, A., 466.
- Schneider, Hans. See Neelmeier, W.
- Schneider, Hermann. See Society of Chemical Industry in Basle.
- Schneider, J. See Tammann, G.
- Schneider, J. jun., and Hájek, A., evaluation of the power of enzymic mordants by their action on elastin, A., 923.
- Schneider, J. jun., and Ulcek, A., effect of salts and temperature on the manufacture of enzyme [bating] extracts and the results of enzyme analyses, B., 378.
- Schneider, K. See Grube, G.
- Schneider, K. (Marburg). See Krollpfeiffer, F.
- Schneider, M., metallographic etching, A., 339.
- Schneider, O. See Breuning, E.
- Schneider, P. See Mondain-Monval, P.
- Schneider, R. See Ruff, O.
- Schneider, W., and Eisfeld, K., thio-sugars and their derivatives. XIII. Addition of acetobromoglucose to thiocarbamides; *S*-glucosido- ψ -thiocarbamides, A., 872.
- Schneider, W., Gille, R., and Eisfeld, K., thio-sugars and their derivatives. XII. Xanthoglucose and its fission to glucothiose [α -thioglucose], A., 872.
- Schneider, W. See Albert, A. F.
- Schneider, W. A., actino-electric effects in argentite, A., 212.
- Schneitzpahn, K., crystallisation mixer for treating massecuites in sugar works, etc., (P.), B., 281.
- Schneidewind, R., and Urban, S. F., behaviour of plating baths and anodes during electrodeposition of chromium, B., 450.
- Schneidewind, R., Urban, S. F., and Adams, R. C., jun., effect of trivalent chromium and iron on chromic acid chromium plating baths, B., 450.
- Schnell, A. See Freundlich, H.
- Schnell, E. O., manufacture of finishing lime, (P.), B., 524.
- Schnitzspahn, K. See I. G. Farbenind. A.-G., and Keller, F.
- Schnorf, A. See Dutoit, P.
- Schnorf, C., and Hefti, F., production of carbohydrate-acridine compounds and solutions thereof, (P.), B., 625*.
- Schnorr, W. F. See Joseph, R. P.
- Schnürmann, F. See Ott, E.
- Schnurmann, R. See Coehn, A.
- Schnurr, W. See Rosenmund, K. W.
- Schober, O., production of adsorption agents from carbonaceous materials, (P.), B., 918.
- Schobrone, C. J., smoke-treating apparatus, (P.), B., 595.
- Schoch, A., variation of protein in blood-serum in acute infection, A., 545.
- Schocken, K. See Mark, H.
- Schoder, E. See Küster, W.
- Schoeller, W. See Chem. Fabr. auf Aktien (vorm. E. Schering) and Schering-Kahlbaum Akt.-Ges.
- Schoeller, W. R., digallic acid as a reagent for earth acids, B., 87.
- Schoeller, W. R., and Jahn, K., precipitation of earth-acids by sodium compounds and quantitative separation of tungsten from tantalum and niobium, A., 387*.
- Schoeller, W. R., and Powell, A. R., analytical chemistry of tantalum, niobium, and their mineral associates. X. Separation of silica from earth acids. XI. Precipitation of titanium by tannin, A., 608.
- Schoeller, W. R., and Waterhouse, E. F., analytical chemistry of tantalum, niobium, and their mineral associates. XII. Pyrosulphate-hydrolysis method. XIII. Separation of zirconium and hafnium from tantalum and niobium, A., 1207.
- Schöllkopf, K., and Rheinische Kampfer-Fabrik G.m.b.H., purification of inactive menthol, (P.), B., 548*.
- Schön, K. See Bernhauer, K.
- Schoen, M. See Fernbach, A.
- Schoen, R. See Levaditi, C.
- Schoenbeck, F. See Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.
- Schönberg, A., and Schütz, O., behaviour of dixanthylene when heated, A., 526.
- Schönberg, A., and Schütz, O. [with Arend, G., and Peter, J.], organic compounds of sulphur. VII. Behaviour of mercaptans towards phenanthraquinone, isatin, and $\alpha\beta$ -unsaturated ketones, A., 72.
- Schönberg, A., and Schütz, O. [with Marschner, W.], organic compounds of sulphur. VIII. Action of $Mg+MgI_2$ on aromatic thioketones, A., 67.
- Schönberg, A., Schütz, O., and Nickel, S., organic compounds of sulphur. X. Action of air on thiobenzophenone, A., 1375.

- Schönberg, A., Schütz, O., and Nickel, S. [with Krüll, H., Marschner, W., and Kaplan, F.], organic compounds of sulphur. IX. Preparation of aromatic thioketones by the action of thioacetic acid on keto-chlorides; action of copper bronze on thiobenzophenone and its derivatives, A., 896.
- Schoenberg, G. See Metallbank & Metallurgische Ges. A.-G.
- Schönborn, H. See Pirani, M.
- Schöner, B. See Siebert, O.
- Schoener, J. G. See Pilling, N. B.
- Schoenfeld, L., means [pads] for disinfecting and/or purifying the atmosphere, (P.), B., 944.
- Schoenfeld, M., apparatus for wet treatment of textile threads, (P.), B., 926.
- Schoenfeld, R. See Fodor, A.
- Schönfelder, R., Riese, W., and Klempt, W., improvement of the calorific value of coke-oven gas, B., 803.
- Schönfeldt, N., apparatus for the determination of electro-endosmosis, A., 1184.
- Schönfeldt, N. See also Illig, K., and Koch-Holm, (Frl.) E.
- Schönheimer, R., chemistry of healthy and of atherosclerotic aorta. II. Quantitative chemical changes in the atherosclerotic aorta. III. Atherosclerotic lipin mixture, A., 1273.
- Schönhöfer, F. See Schuleman, W.
- Schönrock, O., electromagnetic rotation of the plane of polarisation by solutes, A., 221.
- Schoep, A., crystals of cornetite, and their refractive indices, A., 390.
- cassiterite and topaz from the tin mines of Northern Nigeria, A., 503.
- julienite, A., 987.
- Schöpf, C., and Heuck, K., constitution of usnic acid, A., 294.
- Schoepfle, C. S., Van Natta, F. J., and Clarkson, R. G., sulphonylides of cresol- and chlorophenol-disulphonic acids, A., 631.
- Schofield, F. H., effect on heat flow through an insulating wall of modifications of shape of its isothermal boundaries, B., 733.
- Schofield, F. H. See also Griffiths, E.
- Schofield, M., dimorphism of 2-chloroaceto-*p*-toluidide, A., 54.
- Schofield, R. K., cohesion and intermolecular repulsion, A., 829.
- Schofield, W. See "Hart" Accumulator Co., Ltd.
- Scholefield, F., Hibbert, E., and Patel, C. K., action of light on dyed colours, B., 708.
- Scholefield, F., and Patel, C. K., action of light on cotton dyed with vat dyes, B., 811.
- Scholefield, F. See also Manchester Oxide Co., Ltd.
- Scholl, H., treating liquids with ultra-violet rays, (P.), B., 933.
- Scholl, R. [with Stix, E., Donat, J., Leonhardt, W., Dehnert, H., Wanka, L., and Weber, E.], free organic radicals. VII. Arylperipyrrolinoanthranolazyls, A., 773.
- Schollenberger, C. J., rapid determination of calcium and magnesium, A., 385.
- thymolphthalein as indicator for titrimetric determination of carbon dioxide, A., 1346.
- manganese as an active base in soil, B., 537.
- Scholtyssek, H. See Schmitz, E.
- Scholtz, G. P., determination of morphine with barium hydroxide, A., 1145.
- Scholz, P., electrolytic precipitation of fresh and preserved latices and the rôle of the albumin in coagulation, B., 309.
- Scholz, P. See also Hauser, E. A.
- Scholz, V., and Eibes, B., adhesive compounds for combating insect pests, (P.), B., 102.
- Schoonmaker, J. M., jun., and Texas Co., cracking of mineral oil, (P.), B., 702.
- Schoor, A. van. See Windaus, A.
- Schoorl, N., oxalic and adipic acids as standards, A., 262.
- importance and examination of standards for titration, A., 1203.
- Schopf, C. [with Braun, W.], alkaloids of lupins. III. Sparteine, A., 1144.
- Schopf, C. [with Schmidt, E.], alkaloids of lupins. II. Possible relations between lupinine and the cinchona alkaloids, A., 1144.
- Schopf, C. [with Thoma, O.], alkaloids of lupins. I. Isomeric lupinic esters and lupinans, A., 1144.
- Schorigin, P., action of triphenylcarbinol on cresols, A., 59.
- tolyl ethers and their reactions with metallic sodium, A., 59.
- Schorn, H., investigation of solutions containing albumin and metallic salts by the washing-out method, A., 1338.
- Schorn, H., and Müller, R., aluminium alloys, (P.), B., 271.
- [non-corrosive] aluminium alloys, (P.), B., 528.
- Schorsch, G. See Heuser, E.
- Schott, G. See Thiene, H.
- Schott, H. F., Swift, E. H., and Yost, D. M., reduction potential of selenium and the energy of aqueous selenous acid, A., 482.
- Schotte, H., Priewe, H., and Roescheisen, H., guanidine. II. Synthesis of creatinol [*N*-methyl-*N*-(β -hydroxyethyl)guanidine], A., 1122.
- Schotte, H. See also Chem. Fabr. auf Aktien (vorm. E. Schering), and Schoeller, W.
- Schottmüller, A. See Neubauer, H.
- Schou, S. A., absorption spectra of some anthocyanidins, A., 5.
- absorption spectrum of solutions of formaldehyde, A., 458.
- Schou, S. A., and Wurmser, R., reducing power of dextrose, A., 371.
- Schou, S. A. See also Baggesgaard-Rasmussen, H., Henri, V., and Neuberg, C.
- Schouten, D. E., value of benzidine reaction and the clinical significance of the hæmatoporphyrin test in faeces, A., 437.
- Schrack, E., and Ettenreich, R. (Radiowerk E. Schrack), production of highly emitting oxide cathodes for electron tubes, (P.), B., 162.
- absorption of non-precious gases in manufacturing electric discharge tubes, (P.), B., 490.
- Schrader, A. L., Concord grape: fruiting habits of the vine, B., 584.
- Schrader, G. See Krauss, F.
- Schrader, H., lead sulphate, B., 926.
- Schramek, W. See König, W.
- Schramm, E., effect of potash and soda feldspars in china body, B., 263.
- coloration of and free acid in coke-oven ammonium sulphate, I. and III., B., 332.
- Schramm, E. See also Wiessmann, H.
- Schramm, W. See Honcamp, F.
- Schramme, A. See Hupe, R.
- Schranz, K. See I. G. Farbenind. A.-G.
- Schreiber, A. B., animal feed, (P.), B., 690.
- Schreiber, H. See Glocker, R.
- Schreiber, N. E., Sollmann, T., and Booth, H. S., determination of traces of mercury. III. Determination of mercury in urine and faeces and the influence of medication, A., 860.
- Schreiber, W. T. See Markley, K. S., and United States Industrial Alcohol Co.
- Schreinemakers, F. A. H., equilibria in systems in which phases are separated by a semipermeable membrane. XXIII., A., 21.
- osmosis of ternary liquids; general considerations. I., III., IV., and V., A., 233, 583, 1184.
- Schreinemakers, F. A. H., and Walter, B. C. van B., osmosis of ternary liquids; experimental. I., II., and III., A., 702, 1184.
- Schreiner, E., refraction and dissociation of electrolytes. I. In water, A., 708.
- refraction and dissociation of electrolytes. II. In methyl and ethyl alcohol, A., 1089.
- Schribner, B. F. See Meggers, W. F.
- Schrimpe, C. F., and Bakelite Corporation, manufacture of butaldehyde-phenol resins, (P.), B., 579.
- Schrobsdorff, W., production of metal alloys [for tools, etc.], (P.), B., 932.
- Schröder, A., X-ray fine structure of brookite; physical properties of the three titanium dioxides, A., 940.
- Schroeder, F. W. See Oldright, G. L.
- Schröder, H. See Glimm, E.
- Schröder, K. See Fresenius, L.
- Schröder, M. See Schröder, R.
- Schröder, P. See Plauson, H.
- Schröder, R., Schröder, M., Jaroslaw, E., and Levis, S. (Jaroslaw's Erste Glimmerwaren-Fabr. in Berlin), manufacture of plastic masses from albuminous substances, like casein, (P.), B., 615.
- Schröder, R. See also Jaroslaw's Erste Glimmerwaren-Fabr. in Berlin.
- Schröder, V., influence of inorganic ions on the dispersion of ovalbumin and hæmoglobin at various hydrogen-ion concentrations, A., 837.
- Schröder, W. G., cooling device for fatty emulsions or the like, (P.), B., 761*.
- Schröer, E., physical methods in the chemical laboratory. V. Production and measurement of high temperatures, A., 904.
- Schröter, F., and American Telegraph & Telephone Co., glow-discharge valve, (P.), B., 272.
- electric vacuum valve tube, (P.), B., 272.
- Schroeter, G., purification of naphthalene, (P.), B., 740*.

- Schroeter, G. [with Sulzbacher, M.], constitution of aldehyde and ketone hydrogen sulphites. II., A., 1216.
- Schröter, G. A. See Schlubach, H. H.
- Schroeter, K., transformation of austenite into martensite by liquid air, A., 366.
- Schroeter, K. See also Stäblein, F.
- Schröter, M., and Riehl, R., power consumption in the preparation of crêpe rubber, B., 341.
- Schröter, R. See Ott, E.
- Schröter, W. See Eggert, John.
- Schropp, W. See Strobel, A.
- Schroter, G. A., dewatering peat, (P.), B., 595*.
- Schryver, S. B., and Thimann, K. V., gelatin. IX. Scission of gelatin into constituent proteins, A., 81.
- Schryver, S. B. See also Candlin, E. J., and Hewer, H. R.
- Schubardt, W. See I. G. Farbenind. A.-G.
- Schubart, I. See Steinkopf, W.
- Schubert, F. W., and Brysilka, Ltd., manufacture of artificial silk, (P.), B., 188*.
- apparatus for the manufacture of artificial silk, (P.), B., 296*.
- Schubert, F. W. See also Brysilka, Ltd.
- Schubert, M. See Falkenhausen, M. von.
- Schubert, M. P. See Nelson, J. M.
- Schubert, P. See Faust, O., and Karrer, P.
- Schucany, W., regenerative gas-fired furnaces, more particularly of the open-hearth type, (P.), B., 71.
- Schüler, H., structure of the yellow sodium lines (5890, 5896), A., 806.
- Schüler, H., and Wurm, K., structure of the resonance line, 6708 Å., of the lithium arc spectrum; isotope effect with lithium, A., 930.
- Schülze, B., determination of p_H value of paper, B., 852.
- Schünemann, K. H. See Holde, D.
- Schürmann, E., composition of some alkali rocks from the Eastern Arabian desert, A., 1349.
- Schüssler, H. See Goldschmidt, S.
- Schuette, C. N., and Maier, C. G., high-frequency induction furnace for chemical preparations above 1000°, B., 822.
- Schütte, H. See I. G. Farbenind. A.-G.
- Schuette, H. A., and Alder, H., composition of aquatic plants of Lake Mendota. II. *Vallisneria* and *Potamogeton*, A., 1061.
- Schuette, H. A., and Bott, P. A., carotin; a pigment of honey, A., 1062.
- Schuette, H. A. See also Harvey, E. H.
- Schütte, J. C. F. A., apparatus for the electrolytic production of metallic sheets and similar articles, (P.), B., 610, 759*.
- Schütz, F. See Gelsenkirchener Bergwerks A.-G.
- Schütz, M. See Mannich, C.
- Schütz, O. See Schönberg, A.
- Schütz, P. See Matthes, H.
- Schütz, W., anomalous effective cross-section of similar atoms when suffering collisions of the second kind, A., 570.
- Schüz, E., and Meier & Weichert, metallurgical product [cast iron], (P.), B., 933*.
- Schugowitsch, A., determination of coating material in coffee, B., 385.
- Schuhecker, K., [pipette for] micro-determination of sugar and chloride in blood, A., 804.
- Schukarev, A. N., methods of determining the heat equivalent of calorimetric bombs, A., 133.
- thermodynamic deduction of Maxwell's distribution law, A., 588.
- Schukarev, A. N., and Sysoev, detection of minute traces of iodine, A., 978.
- Schukarev, S. A. See Vrevski, M. S.
- Schnkov, J. See Girgolev, S.
- Schuldenzucker, F., acid fixation and swelling of fibrin. II. Swelling of native fibrin in dilute hydrochloric acid, A., 789.
- Schuldt, G., solder for aluminium and its alloys, (P.), B., 271.
- Schulek, E., and Stasiak, A., determination of iodine in thyroid gland preparations, B., 243, 730.
- Schulek, E., and Vastagh, G., composition of tragacanth-paraffin oil emulsions, B., 501.
- determination of novocaine and codeine hydrochlorides in the presence of one another, B., 912.
- Schuleman, W., Schönhöfer, F., and Wiegler, A., detection of "plasmaquin," B., 943.
- Schulemann, W., distillation cooler, A., 147.
- Schulenburg, W., and Roessler & Hasslacher Chemical Co., preparation of camphene, (P.), B., 348.
- Schuler, L. See Willstätter, R.
- Schuler, W. See Harteneck, A.
- Schuloff, R. See I. G. Farbenind. A.-G.
- Schulte, F. See Herz, R.
- Schulte, L., and Allegheny Steel Co., pickling of chromium-iron alloys, (P.), B., 198.
- Schulteis. See Horch, R.
- Schultess-Young, M. See Korenchevsky, V.
- Schultheis, W. See Lindemann, H.
- Schultheiss, G. A., production of anti-freezing solutions, (P.), B., 3.
- Schultz, G. W., [sodium] sulphide stains on white hide, B., 763.
- Schultze, H. S. See I. G. Farbenind. A.-G.
- Schultze, K., capillarity. IX., A., 232.
- Schultze, W., and Atmospheric Nitrogen Corporation, catalyst compact [for production of hydrogen], (P.), B., 748*.
- Schulwas-Sorokina, R. D., dielectric constant of benzene-toluene mixtures, A., 815.
- Schulz, E. See Roginski, S.
- Schulz, E. H., [copper-chromium] constructional steel, B., 607.
- practical corrosion research [applied to iron and steel], B., 860.
- Schulz, G., comparison of the Neubauer seedling method and the Lemmermann citrate method [for determining the phosphate requirement of soils] with field trials at Aschersleben, B., 682.
- Schulz, Georg. See Lorenz, R.
- Schulz, H., production of carbon disulphide, (P.), B., 885.
- Schulz, Walter, spinning of artificial threads according to the stretch-spinning process, (P.), B., 228.
- Schulz, Walter (Dahlen). See Meyerhof, O.
- Schulze, A., thermal expansion of cobalt-nickel, cobalt-iron, and iron-nickel alloys, A., 9.
- has aluminium a transition point? A., 828.
- magnetostriction, A., 1314.
- Schulze, E. L. See Fry, H. S.
- Schulze, F. See Gilman, H.
- Schulze, R. See Hahn, F. L.
- Schumacher, E. See Frankfurter Gas-Ges.
- Schumacher, E. E., and Western Electric Co., Inc., manufacture of an electron-emitting cathode, B., 490.
- Schumacher, H. J., and Lenher, S., carbonyl bromide. II. Preparation and properties, A., 1200.
- Schumacher, H. J., and Sprenger, G., reaction between nitrogen pentoxide and ozone, A., 1100.
- Schumacher, H. J. See also Lenher, S.
- Schumacher, P. See Klimsch, E.
- Schumacher, R. H., Fulghum, B. W., Fulghum, E. W., and Sadler, W. R., manufacture of a [wood] preservative, (P.), B., 54.
- Schumann, T. E. W. See Burke, S. P.
- Schumm, O., side-chain reactions of hæmatin; conversion of α -hæmatin into hæmatoporphyrin methyl ether, and Mörner's method for preparation of hæmatin, A., 80.
- sources of error in detection of blood in clinical and forensic cases. I. Oxidising action of commercial ether. II. Bromine content of commercial hydrogen bromide-acetic acid as a source of error in the identification of blood by conversion into Nencki's hæmatoporphyrin. III. Possibility of confusion of hæmoglobin and hæmatin with iron porphyratin of vegetable food, A., 538.
- [porphyrins and their syntheses], A., 776.
- preparation of hæmin derivatives. I., A., 1148.
- preparation of hæmin derivatives. II. Preparation of pyratin from hæmin by fusion with resorcinol; preparation and properties of pyroporphyrin; introduction of iron into porphyrins in the "iron-phenol fusion," and transformation of iron porphyratins by phenols and phenol-sulphuric acid mixtures, A., 1263.
- Schumm, O., and Mertens, E., porphyratin of yeast. IV. Iron porphyratin from oats and yeast, A., 80.
- conversion of hæmatoporphyrin into hæmateric acid, and the "reversible" side-chain reaction of hæmatin, A., 81.
- iron porphyratins; the reversible side-chain reaction of hæmatin and the behaviour of hæmin and hæmatins towards acids; preparation of hæmateric acid from hæmin and organic acids, A., 1148.
- Schumtermann, E., detection of urochromogen in urine, A., 666.
- Schupp, A. A., and Fredericksen Co., brush for generators, etc., (P.), B., 374.
- Schur, A., and Löw, A., carbohydrate metabolism, A., 1276.

- Schur, M. O., and Brown Co., testing of pulp suspensions, (P.), B., 229.
- Schur, M. O. See also Richter, G. A.
- Schurecht, H. G., methods for testing crazing of glazes caused by increases in size of ceramic bodies, B., 570.
- Schurink, H. B. J. See Backer, H. J.
- Schuster, C. See I. G. Farbenind. A.-G.
- Schuster, E. See Rosenheim, O.
- Schuster, F., influence of preheating on the theoretical combustion temperatures of gaseous fuels, B., 698.
- Schuster, F. See also Witt, D.
- Schuster, H. See Heiduschka, A.
- Schuster, M. B., treatment of oils and other similar hydrocarbons to promote cracking, (P.), B., 472.
- Schuster, R., manufacture of chromic acid in a solid form soluble in water, (P.), B., 522.
- Schutz, J. M., and Hawley, C. G., apparatus for smelting the metallic dust in and recovering the heat from blast-furnace gases, (P.), B., 337.
- Schvezova, O. See Kostytshev, S.
- Schving, P., and Sabetay, S., mixed ethers from alcohols used in perfumery, A., 1130.
- Schwab, E. See Abderhalden, E.
- Schwab, G. M., and Seufferling, F., activation of hydrogen in silent discharge. I., A., 1341.
- Schwab, H. See Müller, Friedrich.
- Schwab, J. W., and Texas Gulf Sulphur Co., treatment of sulphur, (P.), B., 261, 858.
- Schwabe, K. See Müller, Erich.
- Schwabe, R. See I. G. Farbenind. A.-G.
- Schwaibold, J. See Scharrer, K.
- Schwalbe, C. G., determination of α -cellulose, B., 329.
- Schwalbe, C. G., and Lange, Werner, wetting of pine wood, B., 400.
- decomposition of pine wood with sulphites, B., 851.
- Schwamberger, E. See Skraup, S.
- Schwander, (Mlle.) J., and Cordebard, H., transformation of uric acid into carbamide by oxidation with chromic and sulphuric acids, A., 1263.
- Schwandner G.m.b.H. See Pfeiffer.
- Schwaneberg, H. See Hantzsch, A.
- Schwartauer Hönigwerke & Zuckerraffinerie Aktien-Gesellschaft, manufacture of pectin products, (P.), B., 139.
- Schwartz, A., radiation pyrometers, (P.), B., 75.
- Schwartz, E. See Lange, E.
- Schwartz, E. W. See British Thomson-Houston Co., Ltd.
- Schwartz, H. A., and National Malleable & Steel Castings Co., manufacture of malleable iron castings, (P.), B., 197, 931.
- manufacture of malleable cast iron, (P.), B., 269.
- Schwartz, K. W., and United Chromium, Inc., production of hard, wear-resisting printing surfaces, (P.), B., 608.
- Schwartz, O. See Roth, W. A.
- Schwartz, V., coloured reserves under sulphur dyes [by printing], B., 479, 812.
- Schwartzberg, B. See Schiller, G. W.
- Schwartzkopf, O. See Hein, F.
- Schwarz, A., and Coal & Oil Products Corporation, treatment of hydrocarbons, (P.), B., 181.
- Schwarz, A., and Internationale Metall Aktien-Gesellschaft, working-up of mixed shavings of white metal and red metal, (P.), B., 610.
- Schwarz, A., and Petroleum Sand Products Corporation, refining of [hydrocarbon] oils, (P.), B., 221.
- Schwarz, C., and Sassler, H., alimentary glycaemia in phloridzin diabetes; action of phloridzin on the liver, A., 1279.
- Schwarz, C., and Smutny, J., overnutrition and the blood-sugar content, A., 1276.
- Schwarz, F., detection of alcohol in forensic practice, A., 547.
- refining of mineral oils, B., 591.
- Schwarz, F. See also Bělehrádek, J.
- Schwarz, H. G., clarifier and thickener, (P.), B., 773.
- Schwarz, K., normal blood-sugar content of the horse and the ox, A., 662.
- Schwarz, K., and Hamp, H., normal blood-sugar content of dogs and its physiological variations, A., 663.
- Schwarz, K., and Heinrich, K., normal blood-sugar content of hens, A., 663.
- Schwarz, K., and Lubetz, A., production of constant blood-sugar values in rabbits, A., 663.
- Schwarz, K., and Mezler-Andelberg, F., relationship of blood-sugar content to milk production in cows, A., 665.
- Schwarz, K. See also Karrer, P.
- Schwarz, P. See Gebauer-Füllnegg, E.
- Schwarz, R., and Richter, H., silicic acids. IV., A., 33.
- Schwarzberg, B., extractor for vegetable tanning materials, B., 457.
- Schwarze, H. von. See Haufe, W.
- Schwarzenauer, W., production of nitrogen compounds, etc., (P.), B., 747.
- Schwarzenbach, G. See Treadwell, W. D.
- Schwarzkopf, E. See Tammann, G.
- Schwarzkopf, P. See Metallwerk Plansee G.m.b.H.
- Schwedler, H. See Hantzsch, A.
- Schweid, H. H. See Oettingen, W. F. von.
- Schweitzer, E. See Gerlach, W.
- Schweitzer, H., and American Lanil Corporation, manufacture of textile fibres from animal hair and bristles, (P.), B., 638*.
- Schweitzer, W. K., and Grasselli Chemical Co., manufacture of insecticides, (P.), B., 137.
- Schweizer, C., antiseptic action of water-soluble dyes, A., 670.
- Schwen, G., naphthol AS dyes on cellophane [viscose film], B., 890.
- Schwenk, E., alkaline fusion of anthraquinone derivatives, B., 182.
- Schwenk, E., and Wanka, L., technical analysis of carbazole, B., 633.
- Schwentker, F. F., preparation of potassium "pyrogallate" solution for metabolic rate determinations, A., 1164.
- Schwerdtel, F. See Fischer, Hans.
- Schwerin, K. See Adler, E.
- Schwers, F., low-temperature carbonisation, B., 433.
- Schwicker, A., iodometric determination of persulphate, A., 1107.
- Schwieber, W., distillation of fuel having a high ash content in the form of small particles or dust, (P.), B., 883.
- Schwingel, C. H. See Williams, J. W.
- Schworetzky, G., and Excelsior Feuerlöschgeräte Akt.-Ges., gas cartridges for fire extinguishers, (P.), B., 916.
- Scientific and Industrial Research, Department of, atmospheric pollution, B., 732.
- Scientific and Industrial Research, Department of, Fuel Research, fuel for motor transport. IV. Power alcohol from grasses, straws, and waste vegetable materials, B., 5.
- Lancashire coalfield; Wigan four-foot seam, B., 145.
- report of test by the Director of Fuel Research on the Crozier retort installed by Mineral Oils Extraction, Ltd., at Wembley, B., 393.
- Thomas recording gas calorimeter, B., 591.
- coalfields of Scotland; carbonisation of "Kinneil gas" coal, B., 698.
- Sciver, A. See Rideal, S.
- Scoufield, C. S., effect of absorption by plants on concentration of soil solution, B., 101.
- Seohy, M., resistance of ordinary window-glass to the action of water, B., 569.
- Scorer, A. B., utilisation of towns' refuse and refuse fuels, B., 436.
- Scorza, C. See Possenti, A.
- Scott, A. See Dale, A. J., and Woodall-Duckham (1920), Ltd.
- Scott, A. B. See Palmer, C. S.
- Scott, A. E. See Pennycuik, S. W.
- Scott, E. K., treatment of threads of artificial silk and other materials to make them act like wool, (P.), B., 637.
- Scott, E. L. See Pierce, H. F.
- Scott, G. A. See Bone, W. A.
- Scott, H., and Westinghouse Electric & Manufacturing Co., bimetallic [thermostatic] element, (P.), B., 452.
- bimetallic element, (P.), B., 610.
- Scott, N. D. See Conant, J. B.
- Scott, S. G. See Johnson, A. H.
- Scott, W., treatment of yeast, (P.), B., 585.
- Scott, Winfield, and Rubber Service Laboratories Co., vulcanisation of rubber; preparation of a rubber-vulcanisation accelerator, (P.), B., 277.
- Scott, Winfield. See also North, C. O.
- Scott, W. J., and Pool, C. L., chlorination of screened sewage at Bridgeport, Conn., B., 142.
- Scott & Son (London), Ltd., G. See Riley, G. W.
- Scotti, C. M. See Wernicke, R.
- Scotti-Foglieni, L., apparatus for examining the solubility of gases or vapours in water and various body fluids, A., 1348.
- Scotti-Foglieni, L. See also Nieloux, M.
- Scottish Dyes, Ltd. See Anderson, I. B., Beckett, E. G., Drescher, H. A. E., Harris, J. E. G., Hereward, H. W., Hooley, L. J., Smith, William, Thomas, J., Thomson, R. F., White, G. N., Wilson, J. S., and Wylam, B.

- Scoville, W. L., causes of precipitation in tinctures and fluid-extracts, B., 139.
- Scremin, L., variations in the ionic equilibrium as factors of pharmacological action. I. Potassium and convulsant drugs, A., 88.
- barium and sulphate as antidotes, A., 444.
- Scribner, B. W., and Brode, W. R., determination of the copper number of paper, B., 120, 329.
- Scudder, N. F. See Lucas, H. J.
- Scutan Co., production of proofed paper, (P.), B., 521*.
- Scutan Co. See also Reid, J.
- Seailles, J. C., manufacture of alumina [from bauxite, clays, etc.], (P.), B., 230, 603.
- Seaman, C. F. N. See Brinjes & Goodwin, Ltd.
- Searle & Co., G. D. See Kober, P. A.
- Searles, L. W. See Gage, C. H.
- Sebelik, O., determination of combined water in natural sulphates, A., 383.
- Sebrell, L. B., production of an accelerator for the vulcanisation of rubber, (P.), B., 238.
- Sebrell, L. B., and Goodyear Tire & Rubber Co., vulcanisation of rubber, (P.), B., 763*.
- Sebrell, L. B., and Teppema, J., preparation of mercaptobenzthiazoles, (P.), B., 152, 293*, 475*.
- Sebrell, L. B. See also Goodyear Tire & Rubber Co., and Park, O. R.
- Seecareanu, S. See Ionescu, M. V.
- Sédallian, P. See Leulier, A.
- Sedberry, J. B., grinding mill, (P.), B., 217*.
- Sedlmeyer, J. See Dietzel, R.
- Sédych, A., and Seliber, G., decomposition of fats by the tubercle bacillus, A., 447.
- Seebach, F., and Bakelite Ges.m.b.H., purifying phenol-aldehyde resins, (P.), B., 762*.
- purification of phenol-formaldehyde resins, (P.), B., 827*.
- Seebaum, H. See Krollpfeiffer, F.
- Seede, J. A., and General Electric Co., [metal-melting] electric furnace, (P.), B., 98.
- Seekamp, H. See Eucken, A.
- Seel, H., pharmacological studies of the sterols, A., 1051.
- Seel, H. See also Kochmann, M.
- Seel, P. C., and Eastman Kodak Co., changing [lowering] the viscosity characteristics of nitrocellulosic material, (P.), B., 121.
- Seelich, F. See Wintersteiner, O.
- Seeliger, R., and Straehler, H., temperature measurements and catalytic wall effects in the glow discharge, A., 114.
- Seemann, H. E., thermal and electrical conductivity of fused quartz as a function of temperature, A., 227.
- Seemann, H. J., electrical conductivity of silicon, A., 226, 466.
- Seewald, O. See Frieser, L.
- Sefing, F. G., control of normality in plain carbon steels, B., 267.
- Segall, B. See Pfeiffer, P.
- Segebadé, P., hot filter funnel, (P.), B., 590.
- Segrè, E., and Amaldi, E., anomalous dispersion of lithium and mercury, A., 1310.
- Seguin, (Mlle.) L. See François, M.
- Seguy, J. D. See Henny, V.
- Sehnoutka. See Travers, A.
- Seib, J. See Holzverkohlungs-Ind. A.-G.
- Seibert, F. B., active principle of tuberculin. IX. Fractional heat coagulation of the protein of tuberculin. X. Isolation in crystalline form and identification of the active principle of tuberculin, A., 1056.
- active principle of tuberculin. XI. Preparation and assay of standard undenatured tuberculin, A., 1057.
- Seibert, F. B., and Hanke, M. T., electrodialysis of tuberculin. VIII., A., 447.
- Seidel, C. See Gerlach, M.
- Seidel, C. F. See Ruzicka, L.
- Seidel, P. See Haller, and König, W.
- Seidel, W. See I. G. Farbenind. A.-G.
- Seidenberg, A., determination of chlorine in bleached flour, B., 282.
- Seidenberg, S. See Friedberger, E.
- Seidenschnur, F., and Groh, E., comparison of mechanical tar washing and electrical precipitation processes, B., 557.
- Seidler, H., smelting of zinc ores, (P.), B., 609.
- Seifert, H., symmetry of crystals of pentaerythritol, A., 351.
- symmetry of the pentaerythritol nucleus, A., 1313.
- Seifert, W., methyl alcohol in various alcoholic drinks, B., 462.
- Seil, G. E., and Heiligman, H. A., use of manganese in the manufacture of face bricks, B., 604.
- Seil, G. E., Skelly, J. S., and Heiligman, H. A., determination of hydrocyanic acid in gaseous mixtures, A., 858.
- Seiler, K., influence of impurities arising from glass vessels on the titre of alkali hydroxides, A., 385.
- Seip, J. J., Gilchrist process of [sugar juice] clarification, B., 498.
- Seith, W., radium and thorium content of phonolite of the Kaiserstuhl, A., 612.
- reactions of lead in the lead accumulator, A., 959.
- Seitz, F. See Willstätter, R.
- Seitz, G. H., jun. See Seitz, T. F.
- Seitz, J. E., and Du Pont de Nemours & Co., E. I., production of indigo-white [leuco-indigo], (P.), B., 293.
- Seitz, T. F., Seitz, G. H., jun., and Seitz-Werke G.m.b.H., filter, (P.), B., 3*.
- Seitz-Werke G.m.b.H. See Seitz, T. F., and Weil, F. H.
- Seki, S., effect of colloidal silica on the [fertilising] efficiency of phosphates, B., 906.
- Sekine, H., muscle-protein. V. Nutritive value of the muscle-protein. 2. Amount of lysine in the muscle-protein and its effect on the growth of young rats, A., 1278.
- Sekine, S., hydrogen electrode, A., 719.
- Sekito, S., X-ray investigation of density of quenched steels and internal stress existing within them, B., 713.
- Sekito, S. See also Honda, K.
- Selberg, H. See Weil, H.
- Selbi (Société d'Exploitation de Licences de Brevets Ind.), manufacture of a dry and non-hygroscopic fertiliser from the vinasses of distilleries and sugar factories, (P.), B., 239.
- Selchow, D. H. See Putnam, P. C.
- Selden, J. M., carrying-on of [exothermic] catalytic reactions, (P.), B., 42.
- Selden Co., regeneration of catalysts, (P.), B., 90.
- manufacture of plastic compositions, (P.), B., 131.
- [amalgams for] carrying-out exothermic chemical reactions, (P.), B., 161.
- preparation of vanadic acid, (P.), B., 366.
- purification of aromatic hydrocarbons, (P.), B., 516.
- catalytic oxidation of sulphur dioxide, (P.), B., 523, 524*.
- Selden Co., and Andrews, C. E., temperature-regulating system, (P.), B., 659*.
- Selden Co., and Jaeger, A. O., base-exchange bodies, (P.), B., 603.
- Selden Co. See also Andrews, C. E., Canon, F. A., and Jaeger, A. O.
- Selényi, P., electrolytic decomposition of glass, A., 597.
- method for detecting leaks in glass vacuum apparatus, A., 985.
- Seliber, G., formation of fats by micro-organisms, A., 329.
- Seliber, G. See also Sédych, A.
- Seligman, R., removal of incrustation formed on metallic surfaces which are in contact with hot milk, (P.), B., 271.
- heat-exchange or sterilising apparatus, (P.), B., 878.
- Seligsohn, N. See Magidson, O.
- Seljakov, N., Krasnikov, A., and Steozky, T., structure of the $K\alpha$ -lines of the metals between calcium and copper, A., 339.
- Seljakov, N., Kurdjumov, G., and Goodtzov, N. T., X-ray investigation of the structure of quenched steels, B., 607.
- Selle, H. See Kast, H.
- Selles, E. See Moles, E.
- Sellheim, H., manufacture of agents for serodiagnosis of pathological and other conditions, (P.), B., 548.
- Selman, J. See Katz, J. R.
- Selms, J. C. van, photographic density, B., 212.
- Selski, L., continuous treatment of kerosene distillate, B., 468.
- pressure of paraffin wax and other oil products at various temperatures and constant volume, B., 841.
- Selski, T. A., determination of water and mud in oil products, B., 559.
- Selter, G. E. See Klopstock, A.
- Seltz, H., and McKinney, D. S., quinhydrone electrode in amyl alcohol solutions; determination of neutralisation numbers of petroleum products, A., 723.
- Selwyn, E. W. H. See Fowler, A.
- Selwyn, H. H. See Shutt, F. T.
- Selz, R., aluminium alloys, (P.), B., 789.
- Semenov, N., oxidation of phosphorus vapour at low pressures, A., 483.
- theory of combustion, A., 847.
- Semenov, N., and Rjabinin, G., oxidation of sulphur vapour at low pressures, A., 1332.

- Semenov, N. See also Frenkel, J.
 Semenov, V. N. See Saldau, P.
 Sementsov, A., rational nomenclature of chemical compounds, A., 863.
 Semeria, G. B., and Milone, M., catalytic reduction of nitrobenzene to aniline in the gaseous phase, B., 327.
 Semet-Solway Co., and Keane, A. F., distillation systems [for benzolised oil], (P.), B., 80.
 Semiganovskiy, N., determination of the amino-group in nitroarylamines. II. Determination of nitrotoluidine, nitronaphthylamine, and nitroarsenic acid, A., 314.
 determination of reducing sugars, A., 1149.
 Sen, A., determination of the electrical conductivity of the aqueous extract of soil as a rapid means of detecting its probable fertility, B., 870.
 Sen, H. K., and Basu, U., heterocyclic compounds. III. Interactions of cyclohexanone-2-carboxylates with phenols, A., 1254.
 Sen, H. K., and Ghosh, S. K., reaction of diazonium salts with hydroxymethylenecyclohexanones and cyclic β -diketones, A., 185.
 Sen, K. C., adsorption by metallic hydroxides. V. Comparative study of the adsorptive power of iron, aluminium, and chromium hydroxides for acids and alkali, A., 118.
 action of neutral salts in enzymic processes; effect of bromides on salivary amylase, A., 795.
 important factors in the investigation of adsorption from solutions, A., 831.
 influence of volume of solution and mass of adsorbent on the adsorption of arsenious acid by metallic hydroxides, A., 945.
 influence of volume on the adsorption of arsenious acid by iron and aluminium hydroxides, A., 945.
 inhibition by sugars of the precipitation of some metallic hydroxides from solution, A., 951.
 Sen, K. C., and Basu, S. K., effect of haemolytic substances on red blood-corpuscles and the mechanism of haemolysis, A., 663.
 Sen, K. C., and Sen, N. K., alleged acceleration of taurocholate haemolysis by normal serum, A., 1151.
 Sen, M. See Mitter, P. C.
 Sen, N. K., jute seeds; *Corchorus capsularis*. I, B., 35.
 Sen, N. K. See also Sen, K. C.
 Sen, R. N., and Chakravarti, D., 6-aldehydocoumarin and derived dyes, A., 1255.
 alkali sulphonates of coumarin and nitrocoumarin, A., 1255.
 Senderens, J. B., and Aboulenc, J., decomposition of fatty acids by sulphuric acid, A., 45.
 action of sulphuric acid on aromatic acids: sulphonated aromatic acids, A., 881.
 Sendju, Y., formation of blood and bile pigments in the incubated hen's egg, A., 540.
 Sendroy, J. See Abeloos, M.
 Sendroy, J., jun. See Hastings, A. B., and Van Slyke, D. D.
 Sen-Gupta, P. R. See Sircar, A. C.
 Senn, E. See Staudinger, H.
 Sennhauser, E., *in vitro* tissue respiration, A., 1395.
 Senseman, W. B., concentration of liquids, (P.), B., 73.
 Sensi, G., and De Rosa, C., comparative behaviour of animal charcoal and activated aluminium in toxicology, A., 444.
 Sensi, G., and Siri, D., destruction of chloroform by animal putrefaction, A., 675.
 Sensicle, L. H., recovery methods and the ammonia problem, B., 434.
 Senses, K. See Tiede, E.
 Senti, R. See Fichter, F.
 Sentile, G., Rutherford satellite theory, A., 685.
 Sentjurin, B. S., influence of adrenaline on the protein metabolism of isolated organs, A., 1057.
 Séon, M., action of hydrogen bromide on organic esters at the ordinary pressure, A., 990.
 Séon, M. See also Campardou, J.
 Serbescu, P. See Mancke, R.
 Serby, A. M. See Bloch, L.
 Sereque, A. F., change in composition of compressed air after long storage in a steel cylinder, A., 380.
 Serinis, N. S., non-spattering semi-automatic wash bottle, A., 501.
 Serono, C., and Cruto, A., ultra-violet emanations of some organic phosphatides after irradiation, A., 1071.
 Seshadri, T. R., reactivity of the double linking in coumarins and related $\alpha\beta$ -unsaturated carbonyl compounds. I. Addition of cyanoacetamide to coumarins, A., 298.
 Sessions, W. V., catalytic oxidation of furfuraldehyde in the vapour phase, A., 1197.
 Seth, J. B., change in the refractive index of air when an electric glow discharge is passing through it, A., 107.
 Seth, R. von, and Hult, G., von Seth's method of extracting vanadium from pig iron, B., 55.
 Setterberg, I., manufacture of porous refractory bricks, etc., (P.), B., 405.
 Settimj, L., chemical composition of certain foods, B., 209.
 different chemical constituents of the crust and crumb of Roman wheat bread, B., 241.
 chemical composition of certain Italian milk-foods, B., 688.
 Settimj, L. See also Baglioni, S.
 Settimj, M., micro-determination of iodine in potable waters. III. Oxidation method, B., 466.
 Setzer, W. C. See Pierce, J. S.
 Seufferling, F. See Schwab, G. M.
 Seuffert, H. See Weinland, R.
 Sevrin, N., manufacture of potassium sulphate and ammonium chloride, (P.), B., 603.
 Seward, R. P. See Kraus, C. A.
 Sewerin, S. E., chemical composition and properties of blood before and after food. I. Hydrogen-ion concentration of blood and its chloride, sugar, and calcium content, A., 192.
 Sewerin, S. E. See also Derwies, G. W.
 Sexl, T., direct determination of the magnetic moment of a single electron, A., 809.
 theory of adsorption, A., 944.
 Sexton, W. A., colour reactions of substances containing vitamin-D, A., 1161.
 preparation of cholestenone, A., 1372.
 Sexton, W. A. See also Heilbron, I. M.
 Seydel, R. See Pfeiffer, P.
 Seyewetz, A., utilisation of organic compounds as sensitive photographic substances, B., 837.
 Seyewetz, A., and Mounier, D., action of light on colouring matters containing the nitro-group, A., 167, 880*.
 action of light on diazo-derivatives, A., 493, 1103*.
 Seyewetz, A. See also Lumière, A.
 Seyffert, C. See Kuhn, R.
 Seyffert, E., production of alloys in a finely-divided form, (P.), B., 21.
 Seyffert, E., and Fulmit Ges.m.b.H., drying and extracting gases from metallic powders, (P.), B., 610*.
 Seymour, M. W. See Jones, L. W.
 Sîras, J. See Lévy, (Mlle.) J.
 Shackleton, W. See Hammond, C. F.
 Shacklock, C. W., and Drakeley, J., nitrogenous matter in coal, B., 176.
 Shaddock, H. A. See Harkins, W. D.
 Shafer, L. M., and Tower Manufacturing Co., Inc., sulphur dye, (P.), B., 808.
 Shammy Co., Ltd. See Rowsell, H. W.
 Shaneman, S. See Kuehler, W. P.
 Shannon, D. McC., extraction of vapour, particles, etc. from [engine] gases, (P.), B., 321.
 Shannon, E. V., vermiculite from the Bare Hills, near Baltimore, Maryland, A., 149.
 oxidation of meteoric irons; new examples of magnetic iron oxides from terrestrial sources, A., 391.
 ammoniojarosite, A., 1349.
 Shannon, E. V., and Gonyer, F. A., natrojarosite from Kingman, Arizona, A., 149.
 almandite-spessartite garnet from Gwynns Falls, Baltimore, A., 149.
 Shannon, E. V. See also Palache, C.
 Shantz, V. F. See Woodman, M. G.
 Shapiro, C. V., absorption spectra of quinolphthalein and quinolphthalein, A., 813.
 Shapiro, C. V. See also Gibbs, R. C., and Orndorff, W. R.
 Shapleigh, J. H., Bigelow, C. A., and Hercules Powder Co., manufacture of nitric acid, (P.), B., 122.
 Shaposhnikov, V., and Manteifel, A. Y., physiology of *Bacillus acidificans longissimus* (B. delbrücki) in connexion with its possible use in the production of lactic acid, B., 137.
 thermophilic species of *Penicillium arenarium* nov. sp. producing citric acid, B., 137.
 Sharkov, V. I., mercerisation of sulphite-cellulose, B., 890.
 Sharma, R. K. See Bhatnagar, S. S.
 Sharp, J. E. See Brown, R. J.

- Sharp, P. F. See Bateman, G. M.
 Sharp, T. M. See Henry, T. A., and Wellcome Foundation, Ltd.
 Sharp & Dohme. See Dohme, A. R. L.
 Sharpe, T. E. See Gladding, E. K.
 Sharples, D. T., and Sharples Separator Co., centrifugal separator, (P.), B., 773.
 Sharples, P. T., Jones, L. D., and Sharples Specialty Co., refining and purifying of liquids, (P.), B., 176*.
 Sharples, W. E. See Harbens (Viscose Silk Manufcs.), Ltd.
 Sharples Separator Co. See Sharples, D. T.
 Sharples Specialty Co., and Jones, L. D., refining of petroleum, (P.), B., 181.
 Sharples Specialty Co. See also Brewster, O. C., Jones, L. D., and Sharples, P. T.
 Shaternikov, M. N., Molchanova, O. P., and Tonime, M. T., respiration of fat tissue, A., 701.
 Shattuck, G. E., hemolysis of chicken blood, A., 1270.
 Shattuck Chemical Co., S. W. See Potter, J. S.
 Shatwell, H. G. See Dunstan, A. E.
 Shaughnessy, H. J., and Winslow, C. F. A., diffusion products of bacterial cells as influenced by the presence of various electrolytes, A., 329.
 Shaw, B. D., and Wilkie, A. L., fission of pyridine nucleus by oxidation with alkaline potassium permanganate, A., 772.
 Shaw, B. D. See also Wilkie, A. L.
 Shaw, C. See Holliday & Co., Ltd., L. B., and Taylor, W. H.
 Shaw, D. N. See Homerberg, V. O.
 Shaw, F. R. See Ingold, C. K.
 Shaw, H. N. See American Resistor Corp.
 Shaw, M. B., and Bicking, G. W., caroté fibre as a papermaking material, B., 119.
 Shaw, M. M. See Kramer, M. M.
 Shaw, P. E., and Jex, C. S., tribo-electricity and friction. II. Glass and solid elements. III. Solid elements and textiles, A., 467.
 Shaw, T. J., manuring of the potato crop, B., 458.
 Shaw, W. See Kilmarnock Engineering Co., Ltd.
 Shaw, W. M., rotary filter stand, A., 266.
 Shaw, W. M., and Macintyre, W. H., effects of certain impurities on the determination of causticity of limes by modifications of the sugar and Scaife methods, B., 365.
 Shaw, W. M., Macintyre, W. H., and Underwood, J. E., determination of the caustic value of lime; two filtration devices, B., 365.
 Shchegli'ska, M. K. See Sadikov, V. S.
 Shea, J. D., structure of the Swan bands, A., 104.
 Shead, A. C., alkaline-earth metals in "saccharate" solutions and their use in alkalimetry, A., 385.
 Shear, M. J., and Kramer, B., composition of bone. I. Analytical methods. II. Pathological calcification. III. Physico-chemical mechanism. IV. Primary calcification. V. Properties of calcium citrate, A., 1271.
 Sheard, C. See Bollman, J. L.
 Shearer, G. W. See Wilson, J. S.
 Shearer, J., vacuum spectrograph and its use in the long X-ray region, A., 2.
 Shedd, O. M., oxidation of sulphur in limed and unlimed soils, B., 906.
 Sheehy, E. J., relative food values of brown (from "entire" wheat grain) and white (from endosperm of grain) wheaten flour, and their comparative potency for prevention of xerophthalmia in guinea-pigs, A., 333.
 Sheely, C. Q. See Hoover, C. P.
 Shell Co. of California. See Ruys, J. D.
 Shelling, D. H., Kramer, B., and Orent, E. R., calcification *in vitro*. III. Inorganic factors determining calcification, A., 668.
 Shelling, D. H., and Maslow, H. L., effect of sodium citrate, acetate, and lactate on ultrafiltrability of serum-calcium, A., 1150.
 Shelton, H. J., crusher and pulveriser, (P.), B., 2.
 Shelton, J. F. See Hobson, F. E.
 Shemtschushni, S. F., exploitation of the magnesium lakes of the Crimean peninsula, A., 41.
 solubility of chloropentamminerhodium dichloride in water and hydrochloric acid, and that of ammonium chloropalladate in ammonium chloride solution, A., 700.
 action of concentrated sulphuric acid on metallic rhodium, A., 723.
 analysis of platinum ores by fusion with lead, A., 728.
 Shemtschushni, S. F., Zvjaginstsev, O. E., Karpov, B. G., Lebedinski, V. V., and Podkopaev, N. I., analytical commission of the Platinum Institute. I. Reception of platinum ore. II. Rapid analysis of platinum ore. VI. Analysis of the first insoluble residue obtained on dissolving platinum ore with aqua regia, B., 302.
 Shemtschushni, S. F. See also Grigoriev, A. T.
 Shen, C. See Coates, C. E.
 Shenstone, A. G., spark spectrum of silver (Ag II), A., 450.
 apparent failure of the Hund theory, A., 451.
 spark spectrum of palladium (Pd II), A., 930.
 series limits, A., 1296.
 Shepard, M. G., and Naugatuck Chemical Co., catalytic alkylation of aromatic hydrocarbons, (P.), B., 293*.
 Shepard, M. G. See also Gibbons, W. A., and Naugatuck Chem. Co.
 Shepard, N. A., Krall, S., and Firestone Tire & Rubber Co., vulcanising of rubber, (P.), B., 61.
 Shepard, N. A., Palmer, H. F., and Miller, G. W., rate of vulcanisation of reclaimed rubber, B., 238.
 Shephard, R., grinding mill, (P.), B., 506.
 Shepherd, M., weight burette for the micro-measurement of liquid volumes, A., 985.
 Shepherd, M. See also Weaver, E. R.
 Shepherdson, A. See British Dyestuffs Corp., Ltd.
 Sheppard, J. R., and Wiegand, W. B., evaluation of variable-temperature curves [in the vulcanisation of rubber], B., 794.
 Sheppard, S. E., inner photo-electric effect with silver halides, A., 452.
 formation of the photographic latent image, B., 837.
 Sheppard, S. E., and Ballard, A., covering power of photographic silver deposits. I., B., 692.
 Sheppard, S. E., and Crouch, H., optical sensitising of silver halide emulsions. I. Adsorption of orthochrome-T to silver bromide, B., 503.
 Sheppard, S. E., and Eastman Kodak Co., preparation of [non-phosphorescent] fluorescent material [for X-ray screens], (P.), B., 141.
 Sheppard, S. E., Eberlin, L. W., and Eastman Kodak Co., manufacture of a non-dusting carbon [black] pigment, (P.), B., 104.
 Sheppard, S. E., and Hudson, H., additive compounds of allylthiocarbamide and silver halides, A., 401*.
 Sheppard, S. E., and Keenan, R. L., unimolecular films, A., 702.
 Sheppard, S. E. See also Wightman, E. P.
 Sherdeva, L. G. See Sachanov, A.
 Sheridan, G. E. See Griswold, G. G., jun.
 Sherman, A., and Sherman, J., coefficient of expansion of bromoform, A., 578.
 Sherman, A. E. See Lavender, P. C., and Leech, W. S.
 Sherman, H. C., and Burtis, M. P., determination of vitamin-A, A., 1161.
 Sherman, H. C., Caldwell, M. L., and Adams, M., inter-relation of hydrogen-ion activity and concentration of salt in the activation of pancreatic amylase, A., 1280.
 influence of concentration of neutral salt on the activation of pancreatic amylase, A., 1280.
 quantitative comparison of the influence of neutral salts on the activity of pancreatic amylase, A., 1280.
 Sherman, H. C., Quinn, E. J., Day, P. L., and Miller, E. H., relative stability of vitamin-A from plant sources, A., 1058.
 Sherman, J. See Sherman, A.
 Sherrard, E. C., and Kurth, E. F., occurrence of pinito [penta-hydroxymethoxycyclohexane] in redwood, B., 636.
 Sherrard, E. C. See also Davidson, P. B.
 Sherrill, M. L., Schaeffer, F. L., and Shoyer, E. P., isomerism of phenylphthalimide [phthalanil] and a study of the nitro- and chloro-derivatives, A., 412.
 Sherrill, M. S., and Izard, E. F., reduction potential of selenious acid and the free energy of aqueous selenic acid, A., 841.
 Sherts, J. H., and Du Pont de Nemours & Co., E. I., rejuvenation of cellulose ester plastic, (P.), B., 295.
 Sherwood, R. C. See Brooke, C. L.
 Sherwood, R. M., effect of various rations on storage quality of eggs, B., 766.
 Sherwood, S. F., use of the refractometer in the analysis of individual sugar beets, B., 382.
 Shestakov, P. See Petrov, G. S.
 Shestkov, A., quantitative analysis depending on change in density, A., 976.

- Shiba, H., and Imase, T., ebullioscopic method of mol. wt. determination, A., 1348.
- Shiba, K., gases with molecular attraction, A., 1083.
- Shibata, E. See Ishikawa, F.
- Shibata, R., dibenzodithiazinoquinones, a class of vat dyes. I., A., 531.
- dibenzodithiazinoquinones, a class of vat dyes. II. Reaction between nitric acid and dibenzodithiazinequinone, A., 905.
- Shibata, Y., and Asahina, T., spectroscopic study of amino-acid anhydrides. II. Light absorptions of some amino-acids, their esters, peptides, and anhydrides, A., 218.
- Shibata, Y., and Inoue, T., spectroscopic method of studying the formation of complex salts in dilute solution. II., A., 1186.
- Shibata, Z., equilibrium diagram of the iron sulphide-manganese sulphide system, A., 1328.
- desulphurising action of manganese, B., 897.
- Shibata, Z., and Fukushima, M., application of an electromagnetic force to the thermobalance, A., 862.
- Shibayama, K., origin of indican in foetal blood, A., 83.
- Shidei, J., deviations of gaseous mixtures from Dalton's law of partial pressures due to chemical causes. I. Hydrogen chloride and water, A., 229.
- deviations of gaseous mixtures from Dalton's law of partial pressures due to chemical causes. III. Hydrogen chloride and methyl alcohol, A., 355.
- Shields, T. P., and Shields & Moore, white-gold solder, (P.), B., 96.
- Shields & Moore. See Shields, T. P.
- Shiels, D. O. See Hand, P. G. T.
- Shierjebow, L., pentosans in the sulphite[cellulose] cooking process, B., 185.
- Shiga, T., fireproof and anti-rotting composition [for wood], (P.), B., 784.
- Shikata, M. [with Shoji, K.], applications of the polarographic method. III. Micro-analysis of reducible substances in fermentation products, A., 136.
- Shikata, M. [with Tachi, I., and Hozaki, N.], applications of the polarographic method. I. Analysis of abnormal mineral constituents. II. Copper complex salts, A., 136.
- Shikata, M., and Tachi, I., reduction potentials of organic compounds. I. Polarographic method. II. *iso*-Valeraldehyde. III. Pyridine. IV. Nicotinic acid, A., 136.
- reduction potentials of organic compounds. II. Pyridine, A., 648.
- reduction potentials of organic compounds. III. Nicotinic acid, A., 958.
- Shikinami, Y. See Kumagai, T.
- Shilov, E. See Budnikov, P. P.
- Shima, G., electrolytic reduction of aldehydes. II. *m*-Nitrobenzaldehyde, A., 521.
- electrolytic reduction of aldehydes. III. *o*- and *p*-Hydroxybenzaldehydes. IV. Vanillin and piperonal, A., 1372.
- Shimada, K. See Nishida, H., and Oya, T.
- Shimamoto, S., treatment of pulverised vegetable fuels, (P.), B., 439*.
- Shimanovich. See Povarnin, G. G.
- Shimer, W. R., Christ, R. H., and Bethlehem Steel Co., alloy steel, (P.), B., 234.
- Shimizu, Y., electrical method for measuring the setting time of Portland cement, B., 368.
- Shimmura, T. See Mott, R. A.
- Shimoda, Fujimaki, and Saiki, S., vitamin contents of Japanese foodstuffs, B., 942.
- Shimoda, C., occurrence of phytase in yeasts and in *Aspergillus oryzae*, A., 562.
- Shimoda, T., determination of nitrogen. II., A., 564.
- Shimomura, A., relation between low- and high-temperature carbonisation of coal, B., 591.
- Shinoda, O. See Waldsemidt-Leitz, E.
- Shinoda, R., and Ashizawa, C., mannan acetate. I. Preparation of mannan acetate and some of its properties, A., 399.
- Shinoda, R. See also Atsuki, K.
- Shintre, V. P. See Rao, B. S.
- Shipley, J. W., and Goodeve, C. F., alternating-current electrolysis; relation of frequency, A., 245.
- high-voltage arcing and alternating-current electrolysis, A., 1337.
- Shipley, S. D., and Atlas Powder Co., reducing the viscosity and increasing the solubility of nitrocellulose, (P.), B., 109.
- Shipp, H. L., and Zilva, S. S., metabolism in scurvy. I. Lactic acid excretion of scorbutic guinea-pigs, A., 544.
- Shiraishi, T., production of colloidal calcium carbonate, (P.), B., 123.
- Shishido, T. See Mashino, M.
- Shishokin. See Schischokin.
- Shnaidman, L. O., chemical theory of [sugar] saturation, B., 684.
- undetermined sugar losses in the process of defeco-saturation, B., 685.
- Shoaff, P. S., factors in processing reclaimed rubber, B., 238.
- Shock, N. W. See Nelson, R. E.
- Shoda, M., ursodeoxycholic acid in the bile of bears, and its physiological action, A., 666.
- Shoe Inventions, Ltd. See Broomfield, H.
- Shoesmith, J. B., and Guthrie, A., synthesis of 1-phenanthrol, A., 1239.
- Shoesmith, J. B., and Mackie, A., alternating reactive positions in the nucleus of *tert*-butylbenzene, A., 1233.
- Shoesmith, J. B., and Rubli, H., reactivity of halogens in various types of naphthalene derivatives, A., 163.
- Shohl, A. T., apparatus for micro-filtration, A., 389.
- pipette for micro-analyses, A., 389.
- Shohl, A. T., and Bennett, H. B., rickets in dogs; metabolism of calcium and phosphorus, A., 544.
- micro-determination of potassium, A., 1292.
- Shohl, A. T., Bennett, H. B., and Weed, K. L., rickets in rats. IV. Effect of varying acid-base content of diet, A., 915.
- rickets in rats. VII. Calcium and phosphorus metabolism of rats on non-rachitic diets, A., 1288.
- Shohl, A. T., and Bing, F. C., rickets in rats. IX. *pH* of the faeces, A., 1288.
- Shoji, H. See Sachs, G.
- Shollenberger, J. H., and Kyle, C. F., correlation of kernel texture, test weight per bushel, and protein content of hard red spring wheat, B., 384.
- Shonle, H. A., and Lilly & Co., E., calcium-sugar preparations, (P.), B., 140.
- Shonle, H. A. See also Van Scoyoc, G.
- Shope, R. E., distribution of sugar between blood corpuscles and plasma in various species, in normal human beings, and in diabetics, A., 912.
- Shoppee, C. W., possibility of ring-chain valency tautomerism, and of a type of mobile-hydrogen tautomerism analogous to the Wagner-Meerwein rearrangement. V. Pinacolic electron displacement as an explanation of various intramolecular transformations, A., 1135.
- mobility of symmetrical triad (prototropic) systems. III. Three-carbon prototropy in an α -diphenylallyl ether, A., 1240.
- possibility of ring-chain valency tautomerism, and of a type of mobile-hydrogen tautomerism analogous to the Wagner-Meerwein rearrangement. IV. Substitution reactions of some cyclic derivatives of phorone, A., 1248.
- Shoppee, C. W. See also Ingold, C. K.
- Shore, W. E., constructive conversion of heavy into light hydrocarbons, (P.), B., 844*.
- Short, W. F., rearrangement of phenyl benzyl ether, A., 516.
- apparatus for chromic anhydride oxidations, A., 1267.
- Short, W. F. See also Briggs, L. H., Franklin, M. C., and Hosking, J. R.
- Shoshin, A. F. See Inikhov, G. S.
- Shotts, M. A. See Redfield, A. C.
- Shoyer, E. P. See Sherrill, M. L.
- Shrewsbury, H. S., precipitin test for blood, A., 1046.
- Shriner, R. L. See Adams, R.
- Shrivastava, D. L. See Bhatnagar, S. S.
- Shtaub, B. K. See Filosofov, M. S.
- Shubnikov, A., and Shubnikov, O., static methods and their application to the study of crystal habits, A., 223.
- Shubnikov, O. See Shubnikov, A.
- Shuck, G. See Brand, K.
- Shukov, I. I., metallic nitrides and hydrides, A., 841.
- Shumaker, F. D., and Aluminum Co. of America, production of silicon-iron and aluminium-copper alloys, (P.), B., 58.
- Shuravliov, D., and Arbusov, D., density of vegetable tannins and of the skin, B., 795.
- Shutt, F. T., wheat; influence of heredity and environment, B., 102.

- Shutt, *F. T.*, soils of Prince Edward Island, B., 617.
- Shutt, *F. T.*, Hamilton, *S. N.*, and Selwyn, *H. H.*, protein content of grass, chiefly meadow foxtail (*Alopecurus pratensis*), as influenced by frequency of cutting, A., 1062.
- Shvedski, *B. P.*, determination of quinine, A., 564.
- Sibbald, *A. J.* See Dunlop, *H. J. L.*
- Sichel Kommandit-Gesellschaft, *F.*, manufacture of a colour-binding means, (P.), B., 275.
- Sichert, *K.* See Diemair, *W.*
- Sickel, *H.* See Abderhalden, *E.*
- Sicot, *C.*, and Davion, *P.*, extraction of iodine from seaweed, etc., (P.), B., 816.
- Sidersky, *D.*, drying of sugar products and determination of moisture, B., 422.
- Sidgwick, *N. V.* See Menzies, *R. C.*
- Siebenhirter Chem. Ind.-Werk Ges.m.b.H., producing a substance for obtaining a high gloss and pure white colour on paper, etc., (P.), B., 853.
- Siebenschlein, *R.* See Abel, *E.*
- Sieber, *H.* See Helferich, *B.*
- Sieber, *W.*, detection of damaged wool, B., 518.
- [method for] distinguishing raw and bleached cotton fibres in yarns spun from mixtures of the same, B., 518.
- Siebert, *C.* See Cohn, *H.*
- Siebert, *O.*, Thiess, *K.*, Schöner, *B.*, Schmidlin, *R.*, Benade, *W.*, Deicko, *B.*, and Grasselli Dyestuff Corporation, water-soluble dye and its manufacture, (P.), B., 924*.
- Siedenbürger, *H.* See Society of Chemical Industry in Basle.
- Siedler, *P.* See I. G. Farbenind. A.-G.
- Siegel, *L.* See Churchman, *J. W.*
- Sieglersehmiddt, *H.* See Kuntze, *W.*
- Siegmund, *H. O.*, aluminium electrolytic condenser, B., 453.
- Siegmund, *H. O.*, and Western Electric Co., Inc., electrolytic cell, (P.), B., 130.
- electrolyte, (P.), B., 760.
- Sieglwart, *I.* See Staudinger, *H.*
- Siemann, *J. C.* See Hess, *R. W.*
- Siemens, *F. C.* See Siemens Akt.-Ges., *F.*
- Siemens Aktien-Gesellschaft, *F.*, Durrer, *R.*, Siemens, *F. C.*, and Sprenger, *A.*, manufacture of steel in the Siemens-Martin furnace, (P.), B., 574, 676.
- Siemens Electric Lamps & Supplies, Ltd., and Oakley, *P. D.*, [filling for] gas-filled electric lamps, (P.), B., 717.
- Siemens Gebrüder & Co. See Egly, *G.*
- Siemens & Halske Aktien-Gesellschaft, electrodeposition of chromium, (P.), B., 97.
- copper-beryllium alloys and their [heat] treatment, (P.), B., 336.
- manufacture of beryllium or its alloys by electrolysis of fused salts, (P.), B., 336.
- production of electrolytic deposits of metals or alloys, (P.), B., 338.
- generation of ozone, (P.), B., 338.
- ironless induction furnaces or heating apparatus, (P.), B., 415, 716.
- electrolytic extraction of tin from alkaline lyes, (P.), B., 452.
- electromagnetic bodies, (P.), B., 454.
- electrolytic deposition of tin from alkaline solutions, (P.), B., 528.
- means for testing gases of combustion, particularly adapted for boiler supervising plant, (P.), B., 739.
- improving the mechanical properties of heavy metals [nickel, cobalt, and lead] or their alloys, (P.), B., 789.
- deoxidation of metals or alloys, (P.), B., 820.
- anodes for gas-discharge vessels, (P.), B., 864.
- manufacture of shellac-like masses, (P.), B., 867.
- Siemens & Halske Aktien-Gesellschaft, and Fetkenheuer, *B.*, recovery of hafnium, (P.), B., 857.
- Siemens & Halske Aktien-Gesellschaft, and Fink, *C. G.*, electrodeposition of chromium, (P.), B., 338.
- Siemens & Halske Aktien-Gesellschaft, Fink, *C. G.*, and Pan, *L. C.*, production of protective and resistant coatings on metals, (P.), B., 161.
- Siemens & Halske Aktien-Gesellschaft, and Fischer, *Hellmut*, purification of beryllium, (P.), B., 58.
- Siemens & Halske Aktien-Gesellschaft, and Gerdien, *H.*, chemical treatment of dielectric material [mineral oil, turpentine, etc.] in an alternating electric field, (P.), B., 59.
- Siemens & Halske Aktien-Gesellschaft, and Krause, *E.*, production of precipitated material containing silicon [for coating articles], (P.), B., 52.
- Siemens & Halske Aktien-Gesellschaft, and Verein Deutsche Eisenhüttenleute, pyrometers, (P.), B., 42.
- Siemens & Halske Aktien-Gesellschaft. See also Fischer, *Hellmut*, and Gerdien, *H.*
- Siemens-Schuckertwerke Aktien-Gesellschaft, [motor support for] liquid atomisers, (P.), B., 698.
- Siemens-Schuckertwerke Aktien-Gesellschaft, and Siemens-Schuckertwerke G.m.b.H., bright-annealing furnace, (P.), B., 96, 931.
- liquid atomisers, (P.), B., 658.
- Siemens-Schuckertwerke G.m.b.H., coal-dust furnaces, (P.), B., 215, 287.
- [electric] bright-annealing furnaces, (P.), B., 338.
- Siemens-Schuckertwerke G.m.b.H., Estorff, *W.*, and Nagel, *W.*, determination of the water content of insulating oils, (P.), B., 7.
- Siemens-Schuckertwerke G.m.b.H., Fischer, *J.*, and Müller, *F.*, protection of electrical gas-purifying plants, (P.), B., 900.
- Siemens-Schuckertwerke G.m.b.H., and Heinrich, *R.*, electrical gas-purifying plant, (P.), B., 22.
- precipitating electrode for electrical gas purifier, (P.), B., 900.
- Siemens-Schuckertwerke G.m.b.H., and Höfler, *H.*, method of cleaning electrodes of electrical gas purifiers, (P.), B., 900.
- Siemens-Schuckertwerke G.m.b.H., and Karkutsch, *G.*, corrugated sheet-metal electrodes for electrical gas-purification plant, (P.), B., 129.
- Siemens-Schuckertwerke G.m.b.H., and Lübke, *H.*, electrical purification of gases, (P.), B., 129.
- Siemens-Schuckertwerke G.m.b.H., and Rüdenberg, *R.*, electrical gas purifier, (P.), B., 900.
- Siemens-Schuckertwerke G.m.b.H., and Schenkel, *M.*, production of metallic coatings on metal electrodes used in mercury vapour rectifiers, (P.), B., 129.
- Siemens-Schuckertwerke G.m.b.H., and Stassinot, *T.*, bright-annealing furnace, (P.), B., 160.
- electric annealing furnace, (P.), B., 611.
- Siemens-Schuckertwerke G.m.b.H. See also Rohn, *W.*, and Siemens-Schuckertwerke Aktien-Gesellschaft.
- Siemens, *W.* See Tacke, *B.*
- Sierp, *F.*, method for determining the biochemical oxygen demand [of water], B., 318.
- Siersch, *E.*, microchemistry of *Illicium verum*, Hook, and *I. religiosum*, Sieb, *A.*, 1290.
- Sieurin, *S. E.*, production of iron sponge, (P.), B., 820.
- Sievers, *H.*, choline and urea of cerebrospinal fluid in meningococci, *A.*, 86.
- chemistry of the placenta; presence of choline, *A.*, 66.
- Sievers, *H.*, and Müller, *E.*, metabolism of *B. tetani*. I., *A.*, 90.
- Sieverts, *A.*, fluoride of bivalent uranium, *A.*, 722.
- Sieverts, *A.*, and Gotta, *D.*, properties of metallic hydrides, *A.*, 712.
- Sieverts, *A.*, and Müller, *E. L.*, vanadium compounds and boiling sulphuric acid, *A.*, 972.
- per-acids of uranium, tantalum, and niobium, *A.*, 973.
- Sigler, *P. A.*, detection and determination of added moisture in sausage, B., 283.
- Sigmund, *F.*, catalytic nuclear hydrogenation of acetals of aromatic and semi-aromatic aldehydes. I., *A.*, 1009.
- Sigwalt, *R.* See Gault, *H.*
- Sihvonen, *V.*, nature of desensitisation, B., 69.
- Sikorski, *S. F.* See Grischkevitch-Trochimovski, *E.*
- Sikström, *M.* See Jonsell, *S.*
- Silberstein, *K.* See Bechhold, *H.*
- Silbermann, *V.* [removal from cotton yarns and fabrics of] mineral oil stains, B., 741.
- Silbernagel, *K.*, sarcinae, B., 423.
- Silberrad, *O.*, manufacture of artificial [silk] filaments, (P.), B., 520.
- Silberschatz, *S.* See Juliard, *A.*
- Silberstein, *F.*, and Rappaport, *F.*, micro-method for the determination of dihydroxyacetone in blood, *A.*, 539.
- Silberstein, *L.*, theory of photographic exposures, *A.*, 492.
- quantitative relations of the counter-current washing process, B., 771.
- Silberstein, *L.* See also Bertrand, *G.*
- Silesia Verein Chemische Fabrik, oxidation of arylalkyldithiocarbamic acids to the corresponding disulphides, (P.), B., 225.
- separation of mono- and di-alkyl derivatives of aromatic amines, (P.), B., 361.

- Silesia Verein Chemische Fabrik, and Klein, H., utilisation of [production of sodium thiosulphate and carbon disulphide from] trithiocarbonate solutions, (P.), B., 814.
- Silesia Verein Chemische Fabrik, Klein, H., and Flemming, W., removal of heavy metals other than iron from neutral or alkaline solutions of zinc compounds, (P.), B., 893.
- Silesia Verein Chemische Fabrik, and Schlösser, P., purification of silica gel, (P.), B., 602.
- Silesia Verein Chemische Fabrik, Schlösser, P., Bartsch, K., and Alaschenski, G., production of pure lead chloride and potassium nitrate, (P.), B., 815.
- Silesia Verein Chemische Fabrik. See also Flemming, W.
- Silica Gel Corporation, refining of liquid hydrocarbons, (P.), B., 632.
- Silica Gel Corporation, and Miller, E. B., refrigeration processes and apparatus, (P.), B., 554.
- Silica Gel Corporation, Miller, E. B., and Connolly, G. C., manufacture of catalytic gels, (P.), B., 893.
- Silica Gel Corporation, and Plews, W. J., electric [storage] batteries, (P.), B., 823.
- Silica Gel Corporation, and Wagner, F. H., jun., separation or recovery of a gas or vapour from a mixture of gases or vapours, (P.), B., 773.
- Silica Gel Corporation. See also Miller, E. B., and Patrick, W. A.
- Sill, H. F., equilibrium (polarisation) composition of the liquid salt phase and the liquid alloy phase in a system composed of equiatomic quantities of sodium, potassium, and iodine, A., 595.
- Siller, W. See Siller & Rodenkirchen G.m.b.H.
- Siller & Rodenkirchen G.m.b.H., and Siller, W., gas liquefiers for refrigerating plants, (P.), B., 590.
- "Silur" Techn. & Chem. Prod. Ges.m.b.H., and Thorn, I., condensation products, (P.), B., 419.
- Silva, E. See Elöd, E.
- Silva, M. S. See Cournot, J.
- Silvano, E., and Cerri, V. L., process and apparatus for [leaching and] washing materials, (P.), B., 772.
- Silver Springs Bleaching & Dyeing Co., Ltd., and Hall, A. J., [mercerisation] process in which viscose silk is subjected to the action of caustic alkalis, (P.), B., 745.
- Silver Springs Bleaching & Dyeing Co., Ltd. See also Hall, A. J.
- Silverman, A. See Lai, C. F., Mitra, H. K., and Saunders, P. C.
- Silvester, W. A. See British Dyestuffs Corp., Ltd.
- Silvette, H. See Smith, H. W.
- Sim, J. See Weir, Ltd., G. & J.
- Simakov, W. N., reciprocal action of sols of ferric hydroxide, aluminium hydroxide, silicic acid, and manganese dioxide. I, A., 949.
- Simcox, H. J. See Brook, G. B.
- Siméant, L. See Kuppel, H.
- Simington, R. M., and Adkins, H., catalytic oxidation with air of ethyl, isopropyl, and *n*-butyl alcohols, A., 733.
- Simman, J. F., gas calorimeter, (P.), B., 80.
- Simmen, O., apparatus for cooling of fluids, (P.), B., 508.
- Simmer, A. See Grossfeld, J.
- Simmons, J. P., and Ropp, C. D. L., system lithium perchlorate-water, A., 842.
- Simmons, T. A. See British Dyestuffs Corp., Ltd.
- Simms, C. W. See Bogin, C. D.
- Simms, H. S., ionic activity of gelatin, A., 837.
- nature of the ionisable groups in proteins, A., 837.
- effect of salts on weak electrolytes. I. Dissociation of weak electrolytes in the presence of salts, A., 1093.
- effect of salts on weak electrolytes. II. Calculation of overlapping constants, A., 1326.
- Simms, H. S. See also Kunitz, M.
- Simola, P. E., insulin-like substances in higher plants and micro-organisms, A., 205.
- Simon, A. [with Fischer, O., Glauner, R., and Ehling, L.], [simple, automatic cryostat], A., 1348.
- Simon, A., and Kötschau, K. [with Buss, G.], "activity" of the best-known iron springs, A., 147.
- Simon, A., and Neth, W., filtration phenomena, A., 121.
- determination of antimony as tetroxide with membrane filters and porcelain filtering crucibles, A., 265.
- comparison of attack and utility of modern filtering apparatus, A., 266.
- Simon, A., and Szelöczy, J., potassium and calcium contents of peripheral nerve fibres, A., 540.
- Simon, E. See Neuberg, C.
- Simon, F., adsorption of gases by chabasite, A., 580.
- thermal and magnetic researches on adsorbed gases, A., 1317.
- X-ray photography, (P.), B., 213.
- Simon, F., and Kippert, (Frl.) F., measurements on the equation of state for solid argon, A., 1179.
- Simon, F., and Ruhemann, M., specific heats at low temperatures; apparatus for the rapid determination of specific heats of solids at low temperatures, A., 40.
- Simon, F., and Vohsen, E., crystal structure of the alkali metals and of strontium, A., 694.
- Simon, F., and Vohsen, E. [with Simon, C. von], crystal structure of alkali metals, A., 223.
- Simon, G., development of Daguerre plates by cathode pulverisation, B., 245.
- shaft furnaces [cupolas], (P.), B., 574.
- Simon, L. J., and Simon Extracting Machine Syndicate, Ltd., extraction of oils, etc., from bodies containing the same, (P.), B., 455.
- Simon, M. E., and O'Connor, J. A., electrical method and apparatus for identifying chemical elements and compounds and biological organisms, (P.), B., 272.
- Simon Extracting Machine Syndicate, Ltd. See Simon, L. J.
- Simon, Ltd., H., and Jolley, F. R., [separation of] asbestos [from rock], (P.), B., 603.
- Simoncini, E., pickling of hides, B., 205.
- Simond, A. E. See Bugbee, E. P.
- Simonds, F. M., and Hyde, A. F., magnetic separation, (P.), B., 416.
- Simonds Saw & Steel Co. See Howard, L. E.
- Simonnet, H., and Tanret, G., hypoglycæmic properties of galegine sulphate, A., 199, 1053*.
- Simonnet, H. See also Fabre, R., and Randoim, (Mme.) L.
- Simons, L., basis of the selective chemical action of X-rays and light, A., 970.
- Simonsen, J. L. See Bhattacharya, R., Gibson, C. S., Hariharan, K. V., Marchandani, T. J., Pillay, P. P., and Rao, B. S.
- Simpkin, N., characteristics of colliery surface and mine waters, B., 468.
- Simplex Refining Co., refining of oil, (P.), B., 221.
- Simplex Refining Co. See also Pyzel, D.
- Simpson, C. E., manufacture of imitation leather or skins [by coating fabric with cellulose acetate], (P.), B., 651.
- Simpson, E. S., mineralogy of Western Australia. I, A., 390.
- Simpson, G. E., and Wells, A. H., effect of over-breathing and of breathing high concentrations of carbon dioxide on urinary excretion of water and chlorides, A., 314.
- Simpson, K. M., treatment of flue dust, (P.), B., 512.
- Simonson, T., kilns for firing pottery, tiles, etc., (P.), B., 367.
- Simpson, W. W., and MacLeod, J. J. R., immediate products of glycogenolysis in mammalian muscle and liver, A., 545.
- Sims, C. E. See Williams, C. E.
- Sims, C. J., fuels for internal-combustion engines, (P.), B., 703.
- Sims, G. D., and Universal Oil Products Co., apparatus for treating oils, (P.), B., 292.
- Sims, H. A. See Sanderson & Sons, Ltd., A.
- Simon, C. von. See Simon, F.
- Sinclair, D. J. See McGookin, A.
- Sinclair, J. H. See Colony, R. J.
- Sinclair, J. R., electron-emitting cathodes, (P.), B., 646.
- Sinclair, W. B. See Gortner, R. A.
- Sinclair Oil & Gas Co. See Bernard, H. B., and Herthel, E. C.
- Sinclair Refining Co. See Bell, J. E., Erlenbach, E., Herthel, E. C., Isom, E. W., Parmelee, C. L., and Taber, G. H., jun.
- Sindl, O., apparatus for the wet-treatment of textile fibres and yarns in hanks, (P.), B., 480.
- production of cellulose membranes, bands, and films, (P.), B., 810.
- manufacture of artificial threads by the bobbin process, (P.), B., 852.
- Singer, F., reducing the coefficient of expansion of ceramic materials, (P.), B., 712.
- manufacture of artificial plagioclase compounds, (P.), B., 817.
- Singer, J. See Moser, L.
- Singer, M., distillation of liquids, more particularly of liquid hydrocarbons, (P.), B., 513.
- Singer, R. See Wolff, Hans.
- Singer, W. See Reinwein, W.
- Singh, B. See Bhatnagar, S. S.
- Singh, H. See Krishna, S.

- Singh, M., Ahuja, R. S., and Lal, K., action of substituted aromatic amines on camphoric anhydride; bromo- and iodo-camphoranilic acids and camphoro-bromo- and -iodo-phenyl-imides, A., 1377.
- Singh, S. See Hamer, R., and Krishna, S.
- Singleton, C., and Stanier, J. E., ammonia recovery from steamed vertical-retort gas, B., 917.
- Singleton, W., and Chirnside, R. C., analysis of opal glasses, B., 404.
- Singmaster, J. A., Breyer, F. G., Bunce, E. H., and New Jersey Zinc Co., manufacture of zinc oxide, (P.), B., 483*.
- Siniramed, C. See Levi, M. G.
- Sinkinson, E., coal conductivity cell, B., 734.
- Sinnatt, F. S. See Jones, J. H., and Manning, A. B.
- Sinozaki, H., and Hara, R., hydrogen cyanide, A., 227.
- Sipp, K., and Lanz Akt.-Ges., H., hardened cast iron, (P.), B., 304.
- production of iron castings, (P.), B., 756.
- Siracusana, N., spectrum of bromine in the electrodeless discharge, A., 1297.
- Sircar, A. C., and Majumdar, J. N., attempt to prepare *p*-diphenylene, A., 1235.
- Sircar, A. C., and Sen-Gupta, P. R., ring formation. II. Constitution of monophthalylbenzidine. III. Condensation of benzidine with dibasic acid anhydrides, A., 1237.
- Sircar, A. C. See also De, P. K.
- Sircar, S. C. See Raman, C. V.
- Sircar, S. S. G., condensation of cyclohexanealdehyde and malonic acid, A., 289.
- influence of groups and associated rings on the stability of certain heterocyclic systems. IV. Substituted butyro- and valero-lactones, A., 618.
- Siri, D. See Sensi, G.
- Sirois, G., rapid determination of chromium in lead chromate pigments, B., 578.
- Sirost, A. See Koenigs, E.
- Sisley, J. P. See Wahl, A.
- Sisley, P. See Morel, A.
- Sizoo, G. J. See De Haas, W. J.
- Sjöberg, K., enzymic decomposition of starch, A., 1054.
- Sjollema, B., significance of electrolytes for the organism; parturient paresis in cows, A., 1395.
- Skårblom, K. I., graphical representation of the law of mass action, A., 366.
- Skanavi-Grigoréva, M. S. See Tschugaev, L. A.
- Skapski, A. von. See Szyzskowski, B. von.
- Skau, E. L., and Saxton, B., *f. p.*-solubility relations of geometrical isomerides. I. β -Chlorocrotonic acids, A., 1328.
- Skaupy, F., radiation from glowing oxides, A., 217.
- tungsten carbides and their applications, A., 381.
- Skaupy, F., and General Electric Co., electric incandescence lamp and manufacture of its illuminating body, (P.), B., 374.
- Skaupy, F., Hoffmann, H., Schmidt, Helmut, and General Electric Co., manufacture of transparent substances from non-metallic and non-transparent materials [oxides], (P.), B., 199*.
- Skaupy, F. See also Wolff, Hans.
- Skelly, J. S. See Seil, G. E.
- Skinkle, W. B. See Krivibok, V. N.
- Skinner, C. E., fixation of [atmospheric] nitrogen by *Bacterium aerogenes* and related species, B., 343.
- Skinner, D. G. See Graham, J. I.
- Skinner, E. W. See Stewart, G. W.
- Skinner, H. W. B., and Appleyard, E. T. S., excitation of polarised light by electron impact. II. Mercury, A., 102.
- Skipsey, A. See Peachey, S. J.
- Skita, A. [with Keil, F., and Witte, H.], nuclear hydrogenation of quinones in non-acidic media, A., 181.
- Skita, A., and Keil, F. [with Baesler, E., and Boente, L.], formation of bases from carbonyl compounds. II, A., 1228.
- Skita, A., and Keil, F. [with Graetzel, A. von, and Baesler, E.], production of bases from carbonyl compounds, A., 1120.
- Skogmark, J., and Chase, M. F., extraction of zinc, (P.), B., 96.
- Skorbinin, S. F., crystallisation of second-product fill-mass, B., 541.
- Skrabal, A., kinetics of simultaneous reactions, A., 247.
- kinetics of acid and basic catalysis, A., 1336.
- Skrabal, A., and Kalpasanov, S., monoacetals of pentaerythritol, A., 270.
- Skraup, S., superheating of phenyl $\beta\beta$ -dimethylacrylate, A., 1238.
- Skraup, S., and Schwamberger, E., oxidative degradation of carboxylic acids, A., 882.
- Skujin, E., equalisation of the chloride concentration between blood-corpuscles and sodium chloride solutions and its relation to "osmotic resistance," A., 912.
- Skumburdis, K., adsorption of substances dissolved in water by inactive and active carbon, A., 231.
- Skvorzov, S. See Kiesel, A.
- Slack, F. G., intensities in the hydrogen spectral series, A., 566.
- Slade, R. E., and Atmospheric Nitrogen Corporation, carrying-out [exothermic] gaseous catalytic reactions [for synthesis of ammonia], (P.), B., 858*.
- Slade, R. E., Gordon, K., and Atmospheric Nitrogen Corporation, removal of ammonia from synthesis gases, (P.), B., 748*.
- Slade, R. E., Parke, V. E., and Atmospheric Nitrogen Corporation, drying of gases, (P.), B., 359*.
- Slade, R. E. See also Synthetic Ammonia & Nitrates, Ltd.
- Sládek, J., electrolytic oxidation of aniline, A., 969.
- Sládek, J. See also Haurowitz, F.
- Sladović, L. See Pushin, N. A.
- Slansky, P., and Köhler, L., maturing process of polymerised and oxidised linseed oils, B., 273.
- validity of the Hagen-Poiseuille law in the pressure-viscosity of vegetable oils, B., 901.
- Slaschev, A., extraction of castor oil from the seed with gasoline, B., 825.
- Slater, J. C., central fields and Rydberg formulæ in wave mechanics, A., 456.
- normal state of helium, A., 1166.
- the self-consistent field and the structure of atoms, A., 1170.
- Slater, R. H. See Kermack, W. O.
- Slater, W. K. See Davis, J. G.
- Slavianov, U. N., determination of chlorine ions, A., 723.
- Sleator, W. W., Hall effect in the experiments of Corbino, A., 1070.
- Sligh, W. H. See Kessler, D. W.
- Slivovski, L. See Broniewski, W.
- Slokasoff, S. F., von Weimarn's theory of the colloidal state, A., 583.
- Slosse, A., micro-determination of glycogen, A., 1164.
- Slotta, K. H., measuring bomb for very volatile substances, A., 610.
- Slottman, G. V. See Freundlich, H.
- Small, J. See Ingold, C. T.
- Small, V. See Rea, M. W.
- Smallwood, A., and Fallon, J., introducing and removing goods into or from the working chambers of furnaces, (P.), B., 554.
- Smallwood, H. M., and Urey, H. C., attempt to prepare triatomic hydrogen, A., 493.
- Smart, R. A. See Morris Motors (1926), Ltd.
- Smekal, A., work of evaporation of thermions, A., 213.
- grating theory of electrolytic conduction in crystals, A., 351.
- quantum theory of scattering and dispersion, A., 1076.
- electrical conductivity and diffusion in crystallised compounds, A., 1330.
- Smelkus, A., production of purified montan wax, (P.), B., 806.
- Smith, L. See Bogert, M. T.
- Smith & Co., F. L. See Fasting, J. S., and Lindhard, P. T.
- Smiles, S. See Barber, H. J., Chivers, J. C. A., and Price, W. B.
- Smirk, F. H., micro-determination of chlorine and iron in blood and other liquids, A., 317.
- effects of congestion and heat on the composition of venous blood samples; indirect determination of iron and chlorine in blood-corpuscles, A., 785.
- Smirles, W. N. See Friend, J. A. N.
- Smirnov, A. I., composition and metabolism of the tobacco leaf at different stages of growth of the plant, B., 723.
- Smirnov, A. I. [with Drboglav, M. A., and Erygin, L. S.], composition of tobacco leaves, A., 1408.
- Smirnov, N. See Kulikov, V.
- Smirnov, P., influence of sodium chloride on the formation of volutin in the cells of spore-forming bacteria, A., 447.
- Smirnov, S., two scapolites from the banks of the Slioudianka River, A., 865.
- Smit, J., metabolism and distribution of fermentation-sarcina (*S. ventriculi*, Goodsir, and *S. maxima*, Lindner), A., 1403.
- Smit, W. J., adsorption carbon, (P.), B., 470.
- Smith, A. D., and Perl, J., conversion of heavy hydrocarbons into hydrocarbons of lower mol. wt., (P.), B., 471.
- Smith, A. K., and Dow Chemical Co., manufacture of prepared calcium chloride, (P.), B., 403.
- Smith, A. M., relative proportions of exchangeable bases in some Scottish soils, B., 168.

- Smith, A. R., and Vilbrandt, F. C., substitution of sodium for potassium compounds [as reagents], B., 122.
- Smith, A. W., Boord, C. E., Adams, C. S., and Pease, C. S., ultra-violet absorption spectra of cyclohexane, ethyl ether, methyl *n*-amyl ether, and ethylene chlorohydrin, A., 152.
- absorption of ultra-violet light by organic vapours, A., 1308.
- Smith, C. C., and Du Pont de Nemours & Co., E. I., concentration of ores and minerals by flotation, (P.), B., 162.
- Smith, C. F., Thiele, A. C., Walker, L. P., and Smith Engineering Works, conical crushing mill, B., 319.
- Smith, C. H. See South Metropolitan Gas Co.
- Smith, C. M. See Bone, W. A.
- Smith, C. R., dipiperidyls, A., 1025.
- Smith, C. S., crystal structure of copper-gold alloys, A., 1313.
- α -phase boundary of the copper-silicon system, B., 764.
- Smith, D. C., recovery of platinum [from residues], (P.), B., 20.
- Smith, D. F., thermodynamic calculations [for hydrocarbons], A., 1096.
- equilibrium conditions in the formation of hydrocarbons and alcohols from water-gas, B., 699.
- Smith, D. F., Davis, J. D., and Reynolds, D. A., synthesis of higher hydrocarbons from water-gas [at atmospheric pressure], B., 434.
- Smith, D. F., and Hawk, C. O., catalytic decomposition of methyl alcohol, A., 488.
- Smith, D. F. See also Frey, F. E., and Loomis, A. G.
- Smith, D. J., gas producers, (P.), B., 701.
- Smith, E. A., and Bain, J. W., determination of sulphur in organic compounds, A., 1389.
- Smith, E. A. C. See Guggenheim, D.
- Smith, E. L., conditions governing extraction of a solution by an immiscible solvent, B., 771.
- Smith, E. R., apparatus for the moving boundary method of determining transference numbers, A., 958.
- Smith, E. W. See British Furnaces, Ltd., Tomlinsons (Rochdale), Ltd., and Woodall-Duckham (1920), Ltd.
- Smith, F. A., and Pickering, S. F., Bunsen flames of unusual structure, B., 880.
- Smith, F. A. See also Hess, K.
- Smith, F. B. See Jones, T. G. H.
- Smith, F. C., corrosion in gas-supply practice, B., 324.
- Smith, F. D. See Blicke, F. F.
- Smith, F. E., Desborough, A. P. H., Thomson, W. T., Reynolds, H. F., and Blair, E. W., apparatus for mixing and spraying liquids, (P.), B., 879.
- Smith, Francis E., synthesis of water over nickel and copper catalysts; mixture effect and promoter action, A., 719.
- Smith, F. F. P. See Norrish, R. G. W.
- Smith, G., determination of china clay in sized cotton goods, B., 850.
- Smith, G. B. L., and Weiss, A. J., activity of certain aryl-substituted diguanides as accelerators of vulcanisation [of rubber], B., 308.
- Smith, G. F., and Lowry, T. M., dynamic isomerism. XXVI. Consecutive changes in the mutarotation of galactose, A., 510.
- Smith, G. F. See also Soper, F. G.
- Smith, G. P. F. See Richards, T. G.
- Smith, G. S. G. See Foreman, F. W.
- Smith, G. W. See Hall, R. E.
- Smith, H. F., and Gas Research Co., apparatus for effecting heat transfer, (P.), B., 248.
- Smith, H. G. See Smith, P. A.
- Smith, H. H., and Minerals Separation North American Corporation, production of gas, (P.), B., 447.
- Smith, Hannah H. See Hume, E. M.
- Smith, H. L. See Duffendack, O. S.
- Smith, H. W., and Silvette, H., nitrogen excretion of camels, A., 1047.
- Smith, I. B., Keeler, E. A., and Leeds & Northrup Co., ion-concentration control, (P.), B., 900.
- Smith, J. B., desirable soil-nitrate levels for certain market-garden crops, B., 938.
- Smith, J. K., and Granular Iron Co., manufacture of steel, (P.), B., 161.
- Smith, J. M. See Clemo, G. R.
- Smith, J. W., influence of intensive drying on the system nitrogen peroxide-nitric oxide-oxygen, A., 953.
- adsorption of vapours on an amalgamated platinum surface, A., 1087.
- Smith, L., and British Dyestuffs Corporation, Ltd., discharge effects on [textile] materials containing acetyl cellulose, (P.), B., 50*.
- Smith, Lennart, and Lindberg, J., accuracy and practice of quantitative kinetic analysis in the case of bimolecular reactions, A., 1203.
- Smith, Lennart, and Wade, G., titration of carbon dioxide [in water], B., 694.
- Smith, Lennart, Wade, G., and Wdhe, T., kinetics of the addition of water to oxy-compounds; new hydrogen-ion catalysis, A., 25.
- Smith, L. B., Jamison, G. W., and Atlantic Refining Co., sludge treatment, (P.), B., 702.
- Smith, L. E., and International Milling Co., treatment of wheat, (P.), B., 798.
- Smith, L. I., and Crawford, H. M., reaction between duroquinone and Grignard reagents, A., 523.
- Smith, N. A. C., and Lane, E. C., tabulated analyses of [319] representative crude petroleum of the United States, B., 630.
- Smith, O. H., and Naugatuck Chemical Co., compounding and vulcanising rubber and products obtained therefrom, (P.), B., 165.
- Smith, O. H. See also Cadwell, S. M.
- Smith, P. A., Smith, H. G., and Synthetic Ammonia & Nitrates, Ltd., manufacture of acetic acid and acetates, (P.), B., 740*.
- Smith, Ralph B., p_{II} determinations in alcoholic solutions, B., 347.
- silver-ion concentration studies of colloidal silver germicides.
- II. Changes in the silver-ion concentration of solutions on keeping, B., 547.
- Smith, Roscoe B., Symmes, E. M., and Hercules Powder Co., gelatin-dynamite explosive, (P.), B., 428.
- Smith, R. C., viscosity factor in emulsification, A., 124.
- Smith, R. F., analysis of acid-resisting bronze, antimonial lead, and babbitt metal. I. and II., B., 197.
- Smith, R. H., annealing furnace, (P.), B., 269.
- Smith, S., nitrocellulose lacquers; some recent developments, B., 936.
- Smith, Sinclair, dark space in high-frequency discharges, A., 102.
- Smith, Sydney, nor- α -ephedrine, an alkaloid from *Ephedra* species, A., 309.
- Smith, S. C., recovery of zinc from solutions [of zinc salts], (P.), B., 366.
- manufacture of lead salts [from lead chloride], (P.), B., 447.
- treatment of ores containing platinum, (P.), B., 489, 821.
- treatment of ores, residues, etc. for extracting metal [copper, lead, and zinc] values, (P.), B., 757.
- separation of cobalt from [solutions containing] other materials [e.g., nickel], (P.), B., 893.
- Smith, T. B., modifications of the Sand auxiliary electrode, A., 370.
- Smith, T. T., spot of light-reading device for galvanometers, A., 1109.
- Smith, V. C. See Haslam, R. T.
- Smith, Walter, joining together of metal surfaces, (P.), B., 373.
- Smith, Walter, and Expanded Metal Co., Ltd., treatment of metal surfaces [against corrosion], (P.), B., 528*.
- Smith, William, Thomas, J., and Scottish Dyes, Ltd., production of an anthraquinone-hydrazine dye, (P.), B., 888.
- production of dye intermediates [of the anthraquinone series], (P.), B., 922.
- Smith, W. A. See Pneumatic Conveyance & Extraction, Ltd.
- Smith, W. H., reduction of metallic oxides, (P.), B., 451.
- mixing machines, (P.), B., 552.
- Smith, W. P., gas-works effluent, B., 510.
- Smith, W. S., and Garnett, H. T., magnetic alloys and their application in the manufacture of telegraphic and telephonic cables, (P.), B., 20.
- alloy suitable for loading telephone and telegraph conductors, (P.), B., 162*.
- magnetic alloy and its application in the manufacture of telegraphic and telephonic cables, (P.), B., 198*.
- Smith, W. S., Garnett H. T., and Holden, J. A., magnetic alloys, (P.), B., 128, 413*.
- nickel-cobalt-iron alloys, (P.), B., 234.
- alloys and their application to telegraphic and telephonic conductors, (P.), B., 271.
- high-resistance alloys, (P.), B., 373.
- [non-magnetic] alloys, (P.), B., 373.
- magnetic [iron] alloys, (P.), B., 756.

- Smith, W. S., Garnett, H. T., and Holden, J. A., magnetic [chromium-iron] alloys, (P.), B., 790.
refinement of nickel alloys, (P.), B., 820.
alloy and its application to the manufacture of electrical conductors, (P.), B., 863*.
- Smith, W. S., and McLachlan, N. W., photo-electric cell, (P.), B., 22.
- Smith, W. S. See also Fraser, L. McG.
- Smith, W. T., and Cosbie, A. J. C., brewing trials with new and commercial varieties of hops, B., 941.
- Smith, William T. See Yoe, J. H.
- Smith Corporation, A. O. See Andrus, O. E.
- Smith Engineering Works. See Smith, C. F.
- Smith-Reese, J. See Gebauer-Fülneegg, E.
- Smithells, C. J., Williams, S. V., and Avery, J. W., laboratory experiments on high-temperature resistance alloys, B., 714.
- Smithells, C. J. See also Gen. Electric Co.
- Smits, A., intensive drying, A., 251.
influence of intensive drying on inner equilibria. III., A., 1189.
densi-tensimeter, A., 1209.
- Smits, A. [with Mazee, W. M., Rinse, J., and Louwekooymans, L. H.], systems with retrograde melting curves. I. System sodium selenate-water. II. System magnesium sulphate-water, A., 843.
- Smits, A., and Frederikse, W. A., decomposition of the lead atom, A., 933.
- Smolczyk, E. See Deutsche Gasglühlicht-Auer-Gesellschaft.
- Smolenski, K., and Badzyński, W., liquefaction of petroleum asphalt by Bergius' method, B., 661.
- Smolenski, K., and Vlostovska, V., pectin substances. III.-VII., A., 524.
- Smolik, J., reactions of Moravian soils, B., 28.
- Smolik, L., new form of quinhydrone cell for measurements of hydrogen-ion concentration in soils, B., 27.
- Smoot, C. H. See Smoot Engineering Corp.
- Smoot Engineering Corporation, and Smoot, C. H., furnace [draft] regulation, (P.), B., 802.
- Smorodincev, J. A., effect of various substances of the quinine group on the enzymic functions of the organism. VIII. Digestion of edestin by pepsin in presence of quinine hydrochloride, A., 797.
effect of various substances of the quinine group on the enzymic functions of the organism. IX. Effect of quinine on the dynamics of carbohydrate and fat metabolism, A., 1279.
- Smorodincev, J. A., and Adova, A. H., proteolytic activity of pancreatic extracts, A., 202.
electrical conductivity and refractive index of peat-bog waters, A., 730.
determination of the reaction of swamp waters, A., 1064.
nature of proteases. I. Behaviour of amino- and carboxyl groups in various pepsin preparations, A., 1282.
- Smull, J. G. See Knauss, C. A.
- Smutny, J. See Schwartz, C.
- Smyth, C. P., and Morgan, S. O., dielectric polarisation of liquids. II. Temperature dependence of the polarisation in certain liquid mixtures, A., 815.
- Smyth, C. P., Morgan, S. O., and Boyce, J. C., dielectric polarisation of liquids. I. Dielectric constants and densities of solutions of the chlorobenzenes in benzene and in hexane, A., 815.
- Smyth, C. P., and Stoops, W. N., dielectric polarisation of liquids. III. Polarisation of the isomerides of heptane, A., 935.
- Smyth, H. F., and Smyth, H. F., jun., inhalation experiments with certain lacquer solvents, B., 866.
- Smyth, H. F. See also Pike, E. F.
- Smyth, H. F., jun. See Smyth, H. F.
- Snapp, O. I., toxic value of fluosilicates and arsenicals as tested on the plum curculio, B., 683.
- Snapper, I., and Grünbaum, A., excretion of hippuric acid in renal disease, A., 441.
- Snell, A. M. See Greene, C. H.
- Snell, F. D., and Snell, C. T., chemical treatment of trade waste. IV. Waste from organic ester synthesis, B., 293.
- Snell, F. D. See also Snell, C. T.
- Snell, H. S. See Daniels, E. A.
- Snelling, F. C. See South Metropolitan Gas Co.
- Snelling, W. O., contact [current] rectifying device, (P.), B., 934.
- Snelling, W. O., Rupp, G. A., and Trojan Powder Co., explosive composition, (P.), B., 318.
- Snieszko, S., growth of *Bacterium radicola*, A., 1402.
- Snijder, H. G. See Duin, C. F. van.
- Snoek, J. L., jun., and Ornstein, L. S., proof of Schrödinger's theory, A., 1293.
- Snow, R. D. See Popov, S., and Story, LeR. G.
- Snyder, C. L. See Vinal, G. W.
- Snyder, E. F., comparison of the quinhydrone and hydrogen electrodes for determining the hydrogen-ion concentration of soils, B., 167.
application of the antimony electrode to the determination of p_H values of soils, B., 906.
- Snyder, E. F. See also Holmes, W. C.
- Snyder, H. L. See Cartlidge, R. E.
- Snyder, J. E., calculation of heats of combustion, A., 22.
- Snyder, J. E. See also Wendt, G. L.
- Snyder, R. S. See Neidig, R. E.
- Soames, K. M., and Leigh-Clare, J. C., assay of the antirachitic vitamin-D, A., 536.
- Sobek, E., [charging hopper for] kilns, (P.), B., 321.
- Sobieranski, W. See Chrzaszczewska, A.
- Sobolevski, O., ethereal oil content of fragrant plants of the south-eastern territory, B., 913.
- Sobotka, H., and Sabin, A. B., barophoresis in gels, A., 836.
- Società Eno-Tartarica Italiana, manufacture of pure tartaric acid and tartrates, (P.), B., 857.
- Società Italiana di Electrochimica, production of aluminium in electric furnaces, (P.), B., 97.
- Società Italiana di Electrochimica. See also Vernay, V.
- Società Italiana Pirelli, protection of rubber articles against ageing, (P.), B., 62.
vulcanisation of rubber, (P.), B., 204.
degasification of liquids, (P.), B., 216.
impregnation of insulating materials, (P.), B., 339.
- Société Alsacienne de Constructions Mécaniques, production of cast iron of low carbon content in cupola furnaces, (P.), B., 67.
- Société Alsacienne de Constructions Mécaniques. See also Gen. Electric Co.
- Société Anonyme Alumine et Dérivés, and Patrouilleau, L. G., production of fused cement, (P.), B., 750.
- Société Anonyme des Anciens Établissements Gépée. See Vigreux, G.
- Société Anonyme des Anciens Établissements G. Pellerin, melting [blocks of] fatty substances, (P.), B., 492.
- Société Anonyme Appareils et Évaporateurs Kestner, vertical evaporator with long upright tubes, (P.), B., 41.
- Société Anonyme des Ateliers Armand & Décune, extraction of fats, etc., (P.), B., 273.
automatic hydraulically-operated extraction presses, (P.), B., 320.
- Société Anonyme Le Carbone, use of heavy oils in internal-combustion engines, (P.), B., 292.
cracking of vegetable and mineral oils, (P.), B., 472.
carburetted processes and apparatus, (P.), B., 805.
- Société Anonyme Le Carbone. See also Oppenheim, R.
- Société Anonyme des Ciments Luxembourgeois, uniform admixture of finely-powdered material, (P.), B., 801.
- Société Anonyme Cribla. See Bascour, F.
- Société Anonyme des Distilleries des Deux-Sèvres, production of crystallised sugar from molasses and syrup, (P.), B., 137.
continuous concentration of dilute hydrochloric acid, (P.), B., 892.
manufacture of crotonaldehyde and its homologues, (P.), B., 921.
- Société Anonyme des Distilleries des Deux-Sèvres. See also Ricard, E.
- Société Anonyme d'Éclairage et d'Applications Électriques. See Blaringheim, A. J. A.
- Société Anonyme des Engrais et Noir Animal, active carbon, (P.), B., 593.
- Société Anonyme des Établissements Petitdidier (Ancienne Maison Jolly-Belin), colour printing on textile fabrics, (P.), B., 365.
dyeing of fabrics containing previously immunised cotton fibres mixed with other fibres, (P.), B., 521.
- Société Anonyme des Fours à Coke Semet-Solvay & Piette, apparatus for the dry-cooling of coke, (P.), B., 251.
- Société Anonyme Française du Ferodo, friction materials for surfacing the friction elements of brakes, clutches, etc., (P.), B., 413.
anti-friction facing material for bearings, etc., (P.), B., 508.
- Société Anonyme Hewittie, metal coating on carbon electrodes for dry batteries, (P.), B., 934.
- Société Anonyme "La Trinidad," manufacture of asphaltic, bituminous, or tarry emulsions, (P.), B., 369, 806.

- Société Anonyme Le Nickel, metallurgical process, (P.), B., 757.
- Société Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny, & Cirey, annealing glass sheets and plates produced by an intermittent rolling operation, (P.), B., 158.
- manufacture of glass in continuous sheets by flowing and rolling, (P.), B., 299.
- manufacture of glass opaque to X-rays, (P.), B., 605.
- manufacture of tinted [violet] glass, (P.), B., 711.
- annealing sheet glass manufactured intermittently by means of sheet glass forming machines, (P.), B., 784.
- Société Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny, & Cirey. See also Long, B.
- Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis. See Lantz, R., and Wahl, A.
- Société Anonyme des Nouvelles Inventions Mécaniques et Électriques, liquid filters [for fuel oil, etc.], (P.), B., 659.
- Société Anonyme le Pétrole Synthétique. See Olivier, G.
- Société Anonyme Produits Chimiques Coverlin, and Bots, R. H., manufacture of vanillin, (P.), B., 328*.
- manufacture of isoeugenol, (P.), B., 360.
- Société Anonyme Subox, preparation of a scale-removing and preventing substance for use in steam boilers, (P.), B., 876.
- Société Anonyme Union Agricole de Jodoigne, soluble complete manure [fertiliser], (P.), B., 539.
- Société Anonyme Union Photographique Industrielle (Établissement Lumière et Joula Réunis), photographic plates, (P.), B., 286.
- Société d'Application du Gaz aux Moteurs, "S.A.G.A.M." See Cezanne, R. M. A. E.
- Société Barbou & Cie. See Barbou, P. A.
- Société Belge de l'Azote, [reinforcing or uniting means for] lead columns, pipes, etc. [subject to corrosive action], (P.), B., 774.
- Société des Brevets Étrangers Lefranc & Cie., hydrolysis of cellulose whereby high yields are obtained of products suitable for pure or symbiotic butyric fermentation, (P.), B., 187, 364*.
- extraction of butyric acid, (P.), B., 397.
- Société des Brevets Étrangers Lefranc & Cie. See also Lefranc, J.
- Société du Carburateur Zénith, filtering apparatus and filters for gasoline or other liquid fuels, (P.), B., 320.
- Société Chimique de la Grande Paroisse (Azote et Produits Chimiques), manufacture of formaldehyde, (P.), B., 183.
- separation of 2:4-dinitrophenol from admixture with picric acid, (P.), B., 597.
- carrying-out exothermic chemical reactions under pressure and at raised temperatures, (P.), B., 894.
- maintaining an even temperature in chambers in which exothermic reactions are carried out, (P.), B., 915.
- Société Chimique de la Grande Paroisse (Azote et Produits Chimiques). See also L'Air Liquide Soc. Anon. pour l'Étude et l'Exploit. des Proc. G. Claude.
- Société Chimique pour l'Industrie du Cuir, manufacture of synthetic tannins, (P.), B., 682.
- Société Chimique des Usines du Rhône, production of coloured material from cellulose esters, (P.), B., 188.
- continuous manufacture of cellulose acetate, (P.), B., 229*.
- 744.
- manufacture of powdered plastic material, (P.), B., 330.
- coloration of cellulose esters and ethers, (P.), B., 639.
- Société Chimique des Usines du Rhône, and Altwegg, J., rendering stable the combination of 4-dimethylamino-1-phenyl-2:3-dimethyl-5-pyrazolone with butyl chloral hydrate, (P.), B., 730.
- Société Chimique des Usines du Rhône, and Theumann, M. J., coloration of cellulose esters and ethers, (P.), B., 783.
- Société Chimique des Usines du Rhône. See also Bouvier, M. E., and Ledru, M. J. L.
- Société Civile pour l'Étude de la Photographie et de la Cinématographie en Couleurs, films for colour photography, (P.), B., 549.
- photographic colour screens, (P.), B., 914.
- Société Clertin, [continuous] washing of silk piece goods, (P.), B., 601.
- Société des Condenseurs Delas, [apparatus for] dyeing, cleaning, and mordanting of tissues, felts, etc., and similar operations, (P.), B., 260.
- Société des Condenseurs Delas. See also Delas, A.
- Société de Construction d'Appareils pour Gaz à l'Eau et Gaz Industriels. See Humphreys & Glasgow, Ltd.
- Société Electro-Mécanique d'Appareillage pour l'Essence, protective linings for [petrol] tanks, (P.), B., 62.
- Société Electro-Métallurgique de Montricher, furnace electrodes [for manufacture of aluminium], (P.), B., 716.
- furnace electrodes, (P.), B., 716.
- [electrode mounting for] electric furnaces, (P.), B., 824.
- Société Electro-Métallurgique de Montricher. See also Miguet, P. L. J.
- Société des Établissements Barbet, separation of volatile liquids with high boiling points, (P.), B., 111.
- extraction of glycerin from distillery vinasses, (P.), B., 424.
- Société d'Études Chimique pour l'Industrie. See Breslauer, J.
- Société d'Études Minières & Industrielles, manufacture of ammonia, (P.), B., 522.
- Société d'Exploitation de Licences de Brevets Ind. See Selbi.
- Société pour l'Exploitation des Procédés E. Urbain, manufacture of active carbon, (P.), B., 6.
- Société pour la Fabrication de la Soie "Rhodiaseta," treatment of filaments, threads, yarns, and fabrics of artificial silk having for basis cellulose esters or ethers [to produce discharge effects], (P.), B., 855.
- Société pour la Fabrication de la Soie "Rhodiaseta." See also Lahousse, J. E. G.
- Société du Film en Couleurs Keller-Dorian, manufacture of films for colour photography, (P.), B., 286.
- Société du Film en Couleurs Keller-Dorian, and Richard, P. A., colour photography of cinematography, (P.), B., 655.
- Société Française de Catalyse Généralisée, and Henry, C., production of methyl alcohol by catalysis, (P.), B., 473.
- Société Française de Centrifugation, and Rozieres, J. A. L., recovery of fatty material from emulsions, (P.), B., 456.
- Société Française des Lampes à Incandescence "Luxor," and Hawadier, J. A. M., filaments for electric incandescence lamps, (P.), B., 611.
- Société du Gaz de Paris, purification of illuminating gas, (P.), B., 325.
- Société Générale de Fours à Coke Systèmes Lecocq, wet process for extinction of coke, (P.), B., 631.
- Société Générale Métallurgique de Hoboken, [reaction enclosures for use in the] manufacture of sulphuric acid, (P.), B., 122.
- roasting of zinc sulphide ores, (P.), B., 128.
- manufacture of sulphuric acid, (P.), B., 366, 746.
- treatment of zinc sulphate [to form pigments], (P.), B., 747.
- Société Industrielle des Applications Chimiques Société Anonyme (I.N.D.A.C.). See Botson, R.
- Société Industrielle de Briqueterie & Céramique, apparatus for drying industrial [ceramic, etc.] products, (P.), B., 642.
- apparatus for drying industrial products, (P.), B., 696.
- Société Internationale des Combustibles Liquides, pressure regulation in the hydrogenation of coal, (P.), B., 115.
- working-out residues produced in the liquefaction of coal, (P.), B., 115.
- purification of hydrocarbon compounds by hydrogenation and reduction, (P.), B., 117.
- conversion of phenols into hydrocarbons, (P.), B., 118.
- fractionation of coal, oil, and other hydrocarbons, (P.), B., 883.
- Société Internationale des Procédés Prudhomme Houdry, hot desulphurisation of gases derived from the distillation or pyrogenation of solid, liquid, or other combustibles, (P.), B., 220.
- manufacture of synthetic liquid fuels, (P.), B., 438.
- plant for the manufacture of liquid fuels, (P.), B., 470.
- Société Internationale des Procédés Prudhomme (S.I.P.P.). See Prudhomme, E. A.
- Société Lefranc & Cie, fuel for internal-combustion engines, (P.), B., 115.
- Société Le Textilon Central. See Itier, J. A. H.
- Société "Le Xylum," manufacture of magnesia cements, (P.), B., 712.
- Société Lyonnaise de Soie Artificielle, and Chevalet, P. A. A., preparation of a modified cellulose for use in the preparation of cellulose acetate, (P.), B., 258.
- cellulose derivatives for use in the manufacture of artificial textile threads, plastic and like products, (P.), B., 520.
- Société Lyonnaise de Soie Artificielle. See also Cusin, M.
- Société Métallurgica G. Corradini. See Corradini, A.
- Société Migéot Frères & Arnould, enamels based upon barium and strontium compounds and adapted for the enamelling of cast and wrought iron, copper, and other metals, (P.), B., 448.
- Société Nationale de Recherches pour le Traitement des Combustibles, manufacture of methyl alcohol, (P.), B., 596.

- Société Nationale de Recherches pour le Traitement des Combustibles, preparation of a catalyst for synthesis of methyl alcohol, (P.), B., 844.
 preparation of a copper catalyst for synthesis of methyl alcohol and formaldehyde from carbon monoxide and hydrogen, (P.), B., 857.
- Société des Perfectionnements Appl. à l'Ind., emulsions for use in preventing corrosion or scale-formation in boilers, (P.), B., 770.
- Société de Photochimie "Elka," photographic developing processes more especially for use with printing surfaces, (P.), B., 625.
- Société de Photochimie "Elka." See also Procoudine Gorsky & Cie., S.
- Société des Produits Chimiques de Clamecy, distillation of pyrolic acid, (P.), B., 220.
- Société Progil, unhairing and/or softening animal skins, (P.), B., 905.
- Société de Recherches & d'Exploitations Pétrolifères, activation of carbon or carbonaceous substances with simultaneous production of combustible gases, (P.), B., 290.
- Société de Recherches & d'Exploitations Pétrolifères. See also Godel, A.
- Société de Recherches et de Perfectionnements Industriels, multiple-chamber oven chiefly for distilling at low-temperature carboniferous material, (P.), B., 559.
- Société Ricard, Allenet, & Cie. See Ricard, E.
- Société de Stearinerie & Savonnerie de Lyon. See Berthon, P.
- Société Stein & Cie., C. M. See Stein, C.
- Society of Chemical Industry in Basle, manufacture of intermediate products for dyes, (P.), B., 8.
 obtaining highly active substances from female internal secretory organs, (P.), B., 107.
 dyeing of cellulose esters, (P.), B., 121.
 manufacture of anthraquinone derivatives, (P.), B., 153.
 purification of vat dyes, (P.), B., 226.
 discharge printing of dyed acetate silk, (P.), B., 331.
 manufacture of complex gold-nucleic acid compounds, (P.), B., 389.
 manufacture of [trisazo direct] dyes, (P.), B., 443.
 manufacture of new [vat] dyes, (P.), B., 517.
 manufacture of [vat] dyes [from polyhalogenoviolanthrones], (P.), B., 518*.
 production of fast tints on cellulose esters or ethers, (P.), B., 521.
 use of medicaments insoluble or sparingly soluble in water, (P.), B., 547.
 manufacture of organic compounds containing a 1:3:5-triazine residue, (P.), B., 597.
 manufacture of pyridine-2:3-dicarboxylic acid, (P.), B., 624.
 manufacture of artificial forms or threads fast to water and easily dyed, (P.), B., 706.
 manufacture of derivatives of substituted quinolinecarboxylic acids, (P.), B., 730.
 manufacture of products applicable for making dye preparations and of dye preparations made therewith, (P.), B., 781.
 dyeing throughout with vat dyes compact vegetable material, (P.), B., 783.
 manufacture of combined pieces, particularly sheets or plates of artificial resins, (P.), B., 792.
 manufacture of artificial masses, (P.), B., 826.
 manufacture of dye preparations and their application, (P.), B., 848.
 production of a hydrogenated derivative of rubber, (P.), B., 904.
 manufacture of [sulphide] dyes [from carbazoleindophenols], (P.), B., 924.
 manufacture of artificial materials, (P.), B., 937.
- Society of Chemical Industry in Basle, and Ackermann, F., manufacture of vat dyes of the anthraquinone series containing the triazine ring, (P.), B., 294*.
- Society of Chemical Industry in Basle, Blumfeldt, A., and Kägi, H., manufacture of synthetic resin, (P.), B., 132*.
- Society of Chemical Industry in Basle, and Catineau, A., manufacture of [sulphide vat] dyes, (P.), B., 294*.
- Society of Chemical Industry in Basle, and Felix, F., dispersing agent [for dyes] and its manufacture, (P.), B., 847*.
- Society of Chemical Industry in Basle, Fritzsche, H., Krummenacher, E., Gubler, H., and Kaiser, O., manufacture of azo-dyes, (P.), B., 400*.
- Society of Chemical Industry in Basle, Gams, A., and Scheidegger, P., compound of gall acids, (P.), B., 654*.
 manufacture of organic gold[nucleic acid] compounds, (P.), B., 692*.
- Society of Chemical Industry in Basle, Gams, A., and Widmer, G., manufacture of [urea-acr]aldehyde condensation product, (P.), B., 132*.
 condensation of urea and formaldehyde under pressure, (P.), B., 615*, 681*.
- Society of Chemical Industry in Basle, and Hartmann, M., manufacture of physiologically-active substances from female secretory internal organs, (P.), B., 173*.
 manufacture of physiologically-active substances from ovaries, corpus luteum, and placenta, (P.), B., 943*.
- Society of Chemical Industry in Basle, Mayer, B., and Grimmer, J., manufacture of trisazo-dyes derived from dehydrothio-p-toluidinesulphonic acid and resorcinol, (P.), B., 443*.
- Society of Chemical Industry in Basle, Mayer, B., and Siedebürger, H., vat dyes obtained by dehalogenating polyhalogenoviolanthrones, (P.), B., 293.
- Society of Chemical Industry in Basle, and Miescher, K., manufacture of derivatives of quinolinecarboxylic acids, (P.), B., 943*.
- Society of Chemical Industry in Basle, and Minnich, W., esters of unsaturated acids, (P.), B., 769*.
- Society of Chemical Industry in Basle, and Posternak, S., manufacture of phosphorus compound from animal proteins, (P.), B., 943*.
- Society of Chemical Industry in Basle, and Rupe, H., manufacture of hydrocyclic ω -aminoalkyl compound, (P.), B., 503*.
 manufacture of unsaturated aldehydes, (P.), B., 503*.
- Society of Chemical Industry in Basle, and Schmid, M., manufacture of an azo-dye [1-(*o*-chloro)phenyl-3-methyl-5-pyrazolone-azobenzene], (P.), B., 255*.
- Society of Chemical Industry in Basle, and Staudinger, H., manufacture of a caoutchouc derivative, (P.), B., 132*.
- Society of Chemical Industry in Basle, Straub, F., De Montmollin, G., Spieler, J., and Planta, C. von, manufacture of dyes containing chromium, (P.), B., 153*.
- Society of Chemical Industry in Basle, Straub, F., and Schneider, Hermann, manufacture of [azo]-dyes [containing metal], (P.), B., 400*.
 production of [chrome]-azo-dyes containing two hydroxy-naphthalene nuclei, (P.), B., 443*.
- Society of Chemical Industry in Basle, Straub, F., Schneider, Hermann, and Spieler, J., metal compound of azo-dyestuff, (P.), B., 635*.
- Soderlund, O., Gram, T., and Techno-Chemical Laboratories, Ltd., handling of dusty materials, (P.), B., 772.
- Soderlund, O., and Techno-Chemical Laboratories, Ltd., drying of disintegrated material, (P.), B., 352.
- Soderlund, O. See also Testrup, N.
- Söderbäck, E., tetrathiocyanogen dichloride and thiodiazoles obtainable therefrom, A., 1229.
- Söderberg, C. W., and Norske Aktieselskab for Elektrokemisk Industri, electrode mass for self-baking electrodes, (P.), B., 491*.
 self-baking electrodes [for electric furnaces], (P.), B., 864*.
- Söding, H. See Benecke, W.
- Söllner, K. See Freundlich, H.
- Soep, L., microchemical detection of orange II., B., 118.
 detection [in sausage] of dyeing with the colouring matter of sandal wood, B., 209.
- Soep, L. See also Straub, J.
- Sörensen, E. See I. G. Farbenind. A.-G.
- Sörensen, S. P. L., and Katschioni-Walther, L., pepsin hydrolysis, A., 551, 922*.
- Sofue, N., cause of the delay in the van den Bergh reaction in icteric serum, A., 667.
- Sogani, C. M., X-ray diffraction in carbon tetrachloride (liquid), A., 691.
- Sogani, C. M. See also Raman, C. V.
- Sohst, O. See Wagner, Hermann.
- Soie d'Aubenton, continuous manufacture of artificial textile fabrics, (P.), B., 743.
- Sokolov, A. S., and Lyubovtzeva, V. D., determination of minimal quantities of nicotine in blood, A., 193.
- Sokolov, P., and Aristova, T., volumetric analysis of chromates, A., 982.
- Sokolova, (Mle.) E., apparatus for demonstrating thermal conductivity of hydrogen, A., 502.

- Šolaja, B., use of mercury ammonium salts in quantitative analysis. I. Quantitative separation of aluminium and nickel, A., 860.
- Solar Refining Co. See Cory, J. M., and Werkenthin, T. A.
- Solari, A. See Sagastume, C. A.
- Solari, M., ripening of cheese of "Sbrinz" type, B., 463.
- Solarino, (Signa.), G., determination of manganese in Peloro [Messina] wines, B., 797.
- Soldatenkov, S. See Kostytshev, S.
- Soleillet, P., polarisation of resonance radiation of cadmium, A., 930.
polarisation of the resonance radiations of (the) zinc (family), A., 1302.
- Soliven, (Miss) F. A. See Pañganiban, E. H.
- Sollesner, K. See Vegard, L.
- Sollmann, T. See Oettingen, W. F. von, and Schreiber, N. E.
- Solodki, F. See Krestinski, V.
- Soloman, E. I. See Quam, G. N.
- Soloviev, L., gasometric nitrogen determination in small amounts of blood and urine by sodium hypobromite, using Borodin's apparatus, A., 193.
nitrogen metabolism of man after total resection of the stomach, A., 1277.
- Soloviev, V. N. See Prokofiev, V. K.
- Solt, I. H., magnetic moment of helium and molecular hydrogen, A., 1301.
- Soltan, A. See Thibaud, J.
- Soltan, F. See Mallison, H.
- Solvay Process Co. See Sundstrom, C.
- Somerville, A. A. See Vanderbilt Co., Inc., R. T.
- Somerville, J. L. See Benjamin, L. R.
- Somerville, P. G., and Hoffer, W. H., production of liquid fuel for use in internal-combustion engines, (P.), B., 471.
- Someya, K., potentiometric determination of cerium, A., 146, 386*.
use of liquid amalgams in volumetric analysis. X. Determination of vanadium, chromium, and nitro-compounds, A., 387, 861*.
use of liquid amalgams in volumetric analysis. XI. Determination of phosphoric acid by employment of zinc or cadmium amalgam; note to part VII; method of determining chromium in chromium steels, A., 1204.
- Somiya, T., analysis of a mixture of water, nitric acid, and sulphuric acid by thermometric titration, A., 858.
sensitivity of the thermobalance and its use in the analysis of hydrated lime, B., 567.
determination of water in bleaching powder, jelly, etc., B., 640.
- Somlo, F. See Baur, Emil.
- Sommariva, A. See Belladen, L.
- Sommer, A. L., search for elements essential in only small amounts for plant growth, A., 802.
- Sommer, A. L., and Lipman, C. B., indispensable nature of zinc and boron for higher green plants, A., 92.
- Sommer, E., basic lead acetate, B., 746.
influence of the basicity of basic lead acetate in the clarification of molasses solutions, B., 939.
- Sommer, F. See D'Ans, J.
- Sommer, G. See Fehér, D.
- Sommer, H. H. See Titus, R. W.
- Sommer, L. A., absorption experiments on excited molecular hydrogen, A., 5.
- Sommer, P. See Brass, K.
- Sommerfeld, A., electronic theory of metals from the point of view of Fermi's statistics. I. General, conduction, and emission phenomena. II. Thermoelectric, galvanomagnetic, and thermomagnetic phenomena, A., 467.
electron theory of metals, A., 681.
electronic theory of metals according to wave-mechanical statistics; Volta effect, A., 933.
significance of atom models [in the types of chemical combination], A., 1312.
- Sommerfeld, A., and Laporte, O., spectroscopic interpretation of the magneton numbers in the iron group, A., 1303.
- Sommermeier, K., principal vibration quanta of alkali halide vapours, A., 1072.
- Somogyi, M., distribution of sugar in normal human blood, A., 912.
precipitation of blood-proteins with tungstic acid, A., 1045.
- Sonn, A., lichen substances. V. Synthesis of orsellinic acid, A., 756.
- Sonnekalb, F. See Heiber, W.
- Sonstagen, A., and Poverud, G., apparatus for mixing, compacting degassing, or grinding more or less viscid material, (P.), B., 41.
- Soper, F. G., velocity of interaction of ions, A., 24.
equilibrium in electrolyte solutions and the reaction velocity, A., 715.
- Soper, F. G., and Pryde, D. R., activity theory of reaction velocity; interaction of *N*-chloroacetanilide and hydrochloric acid, A., 26.
- Soper, F. G., and Smith, G. F., halogenation of phenols. II. Iodination, A., 56.
effect of constitution of a chloroamine on its hydrolysis constant, A., 249.
- Soper, F. G. See also Orton, K. J. P.
- Sordahl, L. O. See Ingersoll, L. R.
- Soroczyński, M. See Jablęzyński, K.
- Sorum, C. H., preparation of chloride-free colloidal ferric oxide from ferric chloride, A., 703.
- Sosedov, N. I. See Blagoveshchenski, A. V.
- Sosenski, Y., filtration apparatus for washing nickel catalyst, B., 877.
- Sosnick, B. See Randall, M.
- Sotaria G.m.b.H., Chem. pharm. Fabr., production of santonin, (P.), B., 211.
- Souček, J., action of lime in the rendering available of soil nutrients, B., 907.
- Soukup, R. See Keyes, D. B., and Layng, T. E.
- Soula, L. C. See Rouzaud, J. J.
- Soule, B. A., determination of ferrous iron in silicate rocks, I., A., 861.
- Soule, R. P., and Combustion Utilities Corporation, insecticide, (P.), B., 280.
- Soum, M. See Dupont, G.
- Sourdillon, A., and Rolet, platinum-platinum rhodium thermocouples, B., 644.
- Soutar, C. W. See British Alizarine Co., Ltd.
- South Durham Steel & Iron Co., Ltd. See Wood, H. S.
- South Metropolitan Gas Co., and Lamprey, R. H. B., [protection of] refractory bodies such as carbonising retorts, (P.), B., 15.
- South Metropolitan Gas Co., Parrish, P., Snelling, F. C., and Weight, O. W., recovery of ammonia from ammoniacal liquor, (P.), B., 438.
- South Metropolitan Gas Co., and Smith, C. H., coke conveying and quenching apparatus, (P.), B., 150.
- Sowers, W. H. See Nelson, R. E.
- Spacu, G., gravimetric separation of copper and mercury, A., 386.
structure of benzidine; benzidine amines. II., A., 515.
gravimetric separation of iron and mercury, A., 727.
- Spacu, G., and Crearga, C., amines of double salts. XI., A., 494.
- Spacu, G., and Dick, J., rapid determination of lead, A., 264.
determination of cadmium, A., 499.
analysis of the water of Lakes Ursul and Negru, A., 502.
analysis of water from the "Balint" thermal spring, A., 502.
rapid determination of zinc, A., 608.
rapid determination of manganese, A., 982.
- Spacu, G., and Voicu, O., constitution of double salts. XIV. Double amines of iodides, A., 494.
- Späth, E., and Bretschneider, H., synthesis of nicotine, and Nagai's work on epinephrine, A., 431.
active component of paracoto bark; synthesis of protocotoin and methylprotocotoin, A., 1136.
- Späth, E., and Burger, G., new synthesis of pyridine derivatives, A., 1024.
- Späth, E., and Epstein, H., opium alkaloids. IX. Constitution of protopapaverine and synthesis of *dl*-codamine, A., 432.
- Späth, E., Holter, H., and Posega, R., alkaloids of *Corydalis cava*. XI. Constitution of bulbocapnine, A., 432.
- Späth, E., and Hromatka, O., alkaloids of *Corydalis cava*. XII. Synthesis of *d*-bulbocapnine methyl ether, A., 908.
alkaloids of *Corydalis cava*. XIII. Synthesis of *d*-corytuberine dimethyl ether, A., 1265.
- Späth, E., Leithe, W., and Ladeck, F., curare alkaloids. I. Constitution of curine, A., 1264.
- Späth, E., and Wessely, F., active constituents of true coto-bark; constitution of cotoin, A., 762.
- Späth, E. See also Gadamer, J.
- Spagnol, G., chemical factors which determine the deposition of colloids, A., 1154.
- Spalding, H. B. See Frolich, P. K.
- Spangenberg, K., alkylamine alums, and other substitutions in ammonium aluminium sulphate, A., 108.

- Spangenberg, K. [with Haase, M., and Lehmann, W. H.], optical refraction of alkaline-earth compounds with oxygen, sulphur, selenium, and tellurium, A., 220.
- Spangenberg, K. See also Gille, F.
- Spangler, S. F., ammonia oxidation replaces nitro for chamber acid plants, B., 566.
- Spanner, H. J. See Meyer, F.
- Sparklets, Ltd. See Campbell, R. H.
- Sparrow, E. E., mill grinding, B., 1.
- Spasski, N., rapid determination of fatty acids in soap, B., 792.
- Speakman, J. B., plasticity of wool, B., 781.
- Speas, W. E., changes produced in the absorption bands of certain organic fluorescent dye solutions by alterations of concentration and temperature, A., 571.
- Specchia, O., interferential method for measuring magnetic susceptibility of liquids, A., 826.
- Specht, N., manufacture of titanic oxide, (P.), B., 24*.
- Specketer, H. See I. G. Farbenind. A.-G.
- Spees, J. M. See Racatz, R. A.
- Speicher, J. K., and Hercules Powder Co., obtaining nitrocellulose from smokeless powder, (P.), B., 142.
- Speichert, M., extraction of tin mixture from lead and tin alloys, (P.), B., 528.
- Spek, J. van der. See Hissink, D. J.
- Spence, B. J. See Easley, M. A.
- Spence, D., and Boone, C. E., vulcanisation tests of guayule rubber, B., 276.
- Spence, J. See Bretscher, E.
- Spence, K. O. See Griffith, H. D.
- Spence, R. See Clemo, G. R.
- Spence & Sons, Ltd., P., and Craig, T. J. I., treatment of leucite and like minerals, (P.), B., 191.
- Spence & Sons, Ltd., P., Craig, T. J. I., and Kirkham, A., treatment of siliceous materials [for the recovery of silica gel and titania], (P.), B., 748.
- Spence & Sons, Ltd., P., and Crundall, S. F. W., preparation of titanium compounds and pigments, (P.), B., 568.
- Spencer, A. C., and Permutit Co., modification of glauconite, (P.), B., 261.
- Spencer, A. C., and Standard Development Co., continuous cracking and fractionation of hydrocarbons, (P.), B., 7.
- Spencer, C. C. See Peterson, F. C.
- Spencer, C. D., and Ott, L., frosting of glass by mixtures containing hydrofluoric acid and alkali fluorides, B., 52.
- Spencer, E. See Godfrey, (Sir) G. C.
- Spencer, (Miss) G., pectin jellies, A., 17.
- Spencer, G. C. See Collins, W. D.
- Spencer, G. L., and Cuban-American Sugar Co., desugaring of molasses, (P.), B., 103.
- Spencer, H. M. See Randall, M.
- Spencer, J. F., apparatus for potentiometric titrations, A., 143.
- position of rare-earth elements in the periodic system, A., 461.
- Spencer, L. J., specific gravities of minerals; index of some recent determinations, A., 148.
- South African occurrences of willemite; fluorescence of willemite and some other zinc minerals in ultra-violet rays, A., 149.
- potarite, a new mineral from British Guiana, A., 612.
- Spencer, S. E., gas scrubbers, (P.), B., 884.
- Spencer, S. E. See Whitman, J. L.
- Spencer-Churchill, E. G., [arrangement of] kilns [for burning bricks, tiles, etc.], (P.), B., 817.
- Spengler, O., treatment of beet-sugar factory effluents, B., 312.
- Spengler, O., and Brendel, C., determination of the crystal content of raw sugars, B., 30.
- purity quotient of [sugar] beet juice, B., 30.
- natural alkalinity [of beet juices], B., 421.
- Spengler, O., and Landt, E., comparative adsorption by active charcoal. II. Isoelectric point of charcoal, A., 357.
- coagulation of active charcoal, B., 840.
- Spengler, O., Müller, W., and Grasselli Dyestuff Corporation, manufacture of aromatic aminosulphocyno-derivatives, (P.), B., 847*.
- Spengler, O., and Tödt, F., electrometric determination of the ash of sugar factory products, B., 422.
- danger of inversion in sugar factory products, B., 831.
- Spengler, O. See also I. G. Farbenind. A.-G.
- Spensley, J. W., treatment of oils and fats to neutralise and remove their fatty acid content, (P.), B., 130*.
- Sperr, F. IV., jun., Fulweiler, W. H., Daniels, F. E., and Malleis, O. O., test for phenolic tastes and odours in water after chlorination, B., 504.
- Sperr, F. W., jun., Jacobson, D. L., and Koppers Co., gas-purification process, (P.), B., 116.
- liquid purification of fuel gases, (P.), B., 150*.
- Sperr, F. W., jun., and Koppers Co., gas purification, (P.), B., 663.
- Sperr, F. W., jun. See also Koppers Co.
- Sperry, D. R., effect of pressure on fundamental filtration equation when solids are non-rigid or deformable, B., 771.
- Sperry, W. N. See Marvel, C. S., and Robschheit-Robbins, F. S.
- Speyer, W., potentiometric determination of silver as ferrocyanide, A., 859.
- Spicers, Ltd., and Hands, H. J., manufacture of sheets or films of compositions containing cellulose esters or others, (P.), B., 444.
- Spicers, Ltd. See also Hands, H. J.
- Spiegel-Adolf, M., physico-chemical analysis of changes in proteins by heat; reversibility of albumin denaturation, A., 659.
- irradiated proteins. IV. Effect of short-wave radiation on the ultra-violet absorption of serum and of serum-protein, A., 1270.
- Spiegel-Adolf, M., and Krumpel, O., irradiated proteins. II. Absorption in the ultra-violet of light-denatured serum-albumin, A., 190.
- Spieler, J. See Society of Chemical Industry in Basle, and Straub, F.
- Spiers, H. M., variation in consistency of tars with temperature, B., 355.
- Spinnstofffabrik Zehlendorf G.m.b.H. See Deutsche Zellstoff-Textilwerke, G.m.b.H.
- Spirito, F., amino-acid content of milk, A., 195.
- Spirt, J., influence of ultra-violet light on the oxidation quotient of urine, A., 794.
- Spitalski, E., and Funk, A., complex homogeneous catalysis of hydrogen peroxide by sodium molybdate, A., 376*.
- Spitalski, E., and Jofa, S., direct oxidimetric determination of perchlorate in presence of large amounts of chlorate and chloride, A., 383.
- Spittle, H. M., and Wardlaw, W., complex oxalates of quinquevalent molybdenum, A., 1356.
- Spitzyn, V., mechanism of the evolution of radon from radioactive minerals in liquid media, A., 455.
- variation in radioactivity and mineralisation of springs, A., 502.
- Splatt, B., liver glycogen after partial pancreatectomy in the guinea-pig, A., 331.
- Spoelstra, D. B. See Reclaire, A.
- Spörer, H. See Kapfhammer, J.
- Sponsler, O. L., cellulose space lattice of plant fibres, A., 48.
- X-ray methods used in determining the structure of cellulose fibres, B., 851.
- Sponsler, O. L., and Dore, W. H., structure of mercerised cellulose. I. Space lattice of mercerised ramie cellulose as developed from X-ray data, A., 939.
- Spoor, W. L. J., apparatus for mechanical treatment of a mixture of gas and liquid, (P.), B., 915.
- Spotz, C. A., distillation of crude oil from shale, (P.), B., 81*.
- Sprague, H. B., measurement of quantities of chloroplast pigments, A., 784.
- relations between pigment formation, leaf area, and dry weight of maize grown in sand cultures, A., 1161.
- Sprawson, C., and Bury, F. W., organic content of human enamel, A., 440.
- Sprenger, A. See Siemens A.-G., F.
- Sprenger, G., decomposition of nitrogen pentoxide. I. Unimolecular reaction and its arrest at low pressures, A., 1099.
- Sprenger, G. See also Schumacher, H. J.
- Sprenger Patentverwertung Jirotká m.b.H., O. See Jirotká, B.
- Springer, E. G. See Kilduffe, R. A.
- Springer, U., determination of organic matter and especially humified substances in soil, B., 619.
- Sprinkmeyer, F., corrodibility of metals used for [cooking] utensils, B., 57.
- Sproesser, W. C. See Westinghouse Lamp Co.
- Spychalski, R. See Galecki, A.
- Squeo, A. See Salvatore, E.
- Sreenivasiah, B. N., crystal structure of *p*-nitrotoluene, A., 351.
- Sreenivasaya, M. See Krishna, B. H. R., Narayana, N., and Sastri, B. N.
- Sreenivasaya, R., and Sastri, B. N., spike disease of sandal (*Santalum album*, Linn.). I. Diastatic activity of the leaves, A., 804.

- Stachorski, *K. M.*, specific heat and molecular pressure of liquids, A., 469.
 surface tension of liquid mixtures, A., 472.
 coefficient of expansion of binary liquid mixtures, A., 1180.
- Stackable, *E. R.*, manufacture of dicalcium [calcium hydrogen] phosphate and sulphate of ammonia from phosphoric acid or its acid salts, calcium sulphate, and ammonia, (P.), B., 747.
- Stadie, (*Frl.*) *F.*, problem of Brownian molecular motion, A., 1077.
- Stadie, *W. C.*, oxygen-, acid-, and base-combining properties of blood. V. Extension of the Debye-Hückel theory of ionic interaction to haemoglobin, hydrogen carbonate-sodium chloride systems, A., 592.
- Stadie, *W. C.*, and Hawes, *E. R.*, oxygen-, acid-, and base-combining properties of blood. III. Validity of hydrogen-ion activity determinations by the hydrogen electrode in systems containing carbonic acid, carbonates, haemoglobin, carbon monoxide-haemoglobin, and methaemoglobin. IV. The apparent first dissociation constant, pK' , of carbonic acid and the activity coefficient of the hydrogen carbonate ion in solutions of haemoglobin, methaemoglobin, cyanhaemoglobin, and nitric oxide-haemoglobin at varying ionic strengths, A., 591.
- Stadle, *H. P.*, detection of margarine in butter, B., 833.
- Stadler, *P.* See Schlubach, *H. H.*
- Stadlinger, *H.*, blood-albumin and its use as an adhesive for veneer and plywood, B., 158.
 determination of the iodine value [of fats] by means of thiocyanate, B., 374.
- Stadnikov, *G.*, and Barysheva, *A.*, acylation and alkylation of aromatic compounds in presence of stannic chloride, A., 1248.
- Stadnikov, *G.*, and Ivanovski, *E.*, theory of the formation of petroleum; composition of low-temperature tar from Tschermchovski boghead coal, B., 700.
 theory of the formation of petroleum, B., 735.
- Stadnikov, *G.*, and Kashtanov, *L.*, alkylation and acylation in the presence of titanium tetrachloride, A., 876.
- Stadnikov, *G.*, and Proskurnina, *N. F.*, brown coals of the Choliaba region, B., 590.
- Stadnikov, *G.*, and Rakovski, *V.*, acylation of thiophen in presence of tin tetrachloride, A., 427.
- Stadnikov, *G.*, and Titov, *N.*, iminodicarboxylic and nitrilotricarboxylic acids, A., 1241.
 peat tar, B., 882.
- Stadnikov, *G.*, and Vejeman, *A. E.*, composition of the light fractions of tar from the Kashperovka shales, B., 468.
- Stadnikov, *G.*, and Vosschinskaja, *Z.*, transformer oils and their brown deposit, B., 592.
 theory of the formation of petroleum. II. Composition of the low-temperature tar from Mataganski boghead coal, B., 882.
- Stadnikov, *G.*, and Weizmann, *A.*, tar from Russian oil shale, B., 147.
- Stäblein, *F.*, and Schroeter, *K.*, determination of the magnetic saturation of iron carbide, A., 1314.
- Stäger, *H.*, attack of cotton by mineral oils at higher temperatures, B., 443.
- Stärke, *M.* See Burekhardt, *E.*
- Staesse, *M.* See Grube, *G.*
- Stahl, *W.*, chemical composition and roasting of a Siegerland spathic iron ore, B., 299.
- Staiger, amylase content of raw grain and its utilisation in grain distilleries, B., 766.
- Staiger, and Glaubitz, *M.*, comparison of acid production of *B. Delbrücki* and the cold lactic acid bacteria (*B. lactis acidii* and *B. cucumeris fermentati*, Henneberg), B., 499.
- Stainier, *C.*, and Lauwaet, *A.*, determination of isopropyl alcohol in alcoholic preparations, B., 835.
- Staley, *W. D.*, and Helfrecht, *A. J.*, gelatinisation of corn starch in dry cell electrolytes, B., 415.
- Staley Manufacturing Co., *A. E.* See Gill, *L. O.*
- Stalla, *G.*, concentration and diffusion of phosphate in muscle, A., 1398.
- Stallmann, *O.* See Gubelmann, *I.*
- Stamberger, *P.*, swelling of rubber, A., 364.
 swelling phenomena; swelling of caoutchouc, A., 951.
 vulcanisation of oils, B., 23.
- Stamberger, *P.* See also Knight, *B. C. J. G.*
- Stamm, *A. J.*, electroendosmosis through wood membranes, A., 93.
- Stamm, *H.* See Weitz, *E.*
- Stamm, *J.*, detection of decomposition in fatty oils and other fats, B., 577.
- Stamm, *J.*, extension of method for determination of essential oils in drugs, B., 587.
- Stamp, *L. D.*, connexion between commercial oil deposits and major structural features with special reference to Asiatic fields, A., 391.
- Stancliffe, *C. W.*, apparatus for the heating and cooling of fluids, (P.), B., 352.
- Stanczak, *W.* See Lederer, *O.*
- Standard Development Co., manufacture of leather oil, (P.), B., 25.
 treatment of heavy hydrocarbons for the production of lighter hydrocarbons, (P.), B., 358.
 manufacture of organometallic compounds [lead and tin tetraalkyls], (P.), B., 523.
 distillation of hydrocarbons, (P.), B., 739.
 manufacture of hydrocarbons, (P.), B., 842.
 cracking and fractionation of hydrocarbon mixtures and apparatus therefor, (P.), B., 842.
 conversion of hydrocarbon oils into lighter oils, (P.), B., 919.
- Standard Development Co. See also Buc, *H. E.*, Clark, *E. M.*, Howard, *F. A.*, Hudson, *C. S.*, Kraus, *C. A.*, and Speneer, *A. C.*
- Standard Oil Co., coking hydrocarbon oils, (P.), B., 664.
- Standard Oil Co. See also Bransky, *O. E.*, Brewster, *O. C.*, Graves, *G. D.*, Hunneman, *R. D.*, Kinney, *A. M.*, Rogers, *F. M.*, Wendt, *G. L.*, and Wilson, *R. E.*
- Standard Oil Co. of California. See Chappell, *M. L.*, Gray, *E. D.*, Hanna, *R. W.*, and Humphreys, *R. E.*
- Standard Oil Development Co., and Arnold, *C.*, lubricants, (P.), B., 843.
- Standard Oil Development Co. See also Adams, *G. L.*, Becker, *A. E.*, Burgess, *L.*, Carringer, *J. R.*, Coleman, *S. P.*, Fox, *G. E.*, Goodwin, *R. T.*, Howard, *F. A.*, Lewis, *W. K.*, Meacham, *M. R.*, Pester, *C. F.*, and Rudiger, *E. A.*
- Standard Telephones & Cables, Ltd., Andrews, *J. W.*, and Gilles, *R.*, production of magnetic materials, (P.), B., 645.
- Standard Telephones & Cables, Ltd., and Elmen, *G. W.*, magnetic cores, (P.), B., 677.
- Standfast Dyers & Printers, Ltd., Jones, *J. I. M.*, and Kilby, *W.*, dyeing and printing [with water-soluble vat dyes], (P.), B., 708.
- Standfast Dyers & Printers, Ltd. See also Jones, *J. I. M.*
- Staněk, *V.*, and Pavlas, *P.*, formation of incrustation on evaporators [of beet-sugar factories], B., 765.
- Staněk, *V.*, and Sandera, *K.*, relation between alkalinity and electrical conductivity of carbonation juices, B., 280.
- Staněk, *V.*, and Vondrák, *J.*, determination of the polarisation of beets by aqueous digestion, and the errors due to the volume of the marc, B., 344.
- Stanger, *O. C.* See Peters, *F. N., jun.*
- Stangler, *G.* See Fischer, *Hans.*
- Stanicu, *V.*, and Voicu, *O.*, crystal form and crystallographic and mineralogical properties of the double salt $ZnI_2 \cdot KI_2 \cdot 2H_2O$, A., 464.
- Stanier, *J. E.* See Singleton, *C.*
- Stankiewicz, *W.* See Jabczyński, *K.*
- Stanley, *F.*, spectrocomparator, A., 609.
- Stanley, *G. H.*, applications of the "zinc" test for cassiterite, B., 644.
- Stanley, *H. M.*, and Nash, *A. W.*, gas analysis, B., 217.
- Stanley, *H. M.* See also Nash, *A. W.*
- Stanley, *J. C. W.*, and Oceania Industries, Ltd., apparatus for the production of fibre from flax and hemp straw and the leaves of *Phormium tenax*, sisal, abaca, yucca, etc., (P.), B., 257.
- Stanley, *W. M.* See Adams, *R.*
- Stansfield, *A.*, smelting titaniferous ores of iron, B., 485.
- Starck, *F.* See Plücker, *W.*
- Starzewska, *H.* See Swientoslawski, *W.*
- Starink, *H. A.* See Jorissen, *W. P.*
- Stark, *J.*, intensity ratio of the ortho- and para-series in relation to the structure of the helium atom, A., 929.
 ionisation of mercury atoms by reaction with helium ions, A., 931.
 deductions from the atomistic constitution of light energy, A., 1070.
- Stark, *M. E.*, chloride content of canned sauerkraut, B., 689.
- Starkenstien, *E.*, and Weden, *H.*, inorganic iron of the organism, A., 1275.
 fate of inorganic iron in surviving organs, A., 1275.
 fate of inorganic iron in the organism after administration of ferrous and ferric compounds, A., 1275.
- Starkey, *R. L.*, and Halvorson, *H. O.*, transformations of iron in nature. II. Importance of micro-organisms in the dissolution and precipitation of iron, A., 261.

- Starkie, D., and Turner, W. E. S., ultra-violet light transmission of some colourless bottle glasses, B., 404.
- Starkiewicz, J., photoluminescence of solutions of aesculin at low temperatures, A., 347.
- Starkweather, H. W. See Baxter, G. P.
- Starrels, J., production of commercial stearic acid, (P.), B., 375.
- Stary, Z., hydrolysis of keratin for tryptic digestion, III., A., 788.
- Starzewska, M. See Rogoziński, F.
- Stas, M. E., inhibition of the precipitation of calcium tartrate by salts, A., 395.
- Stasiak, A., ineffectiveness of insulin introduced into the intestine, A., 90.
- influence of diet on the physiological assay of insulin, A., 1160.
- Stasiak, A. See also Schulek, E.
- Stassinot, T. See Siemens-Schuckertwerke G.m.b.H.
- Stateler, E. S. See Kohman, H. A.
- Staub, H., alkaloids of ipecacuanha, A., 78.
- Stauber, M. See Herrmann, J.
- Staud, C. J. See Gray, H. le B.
- Staud, H. See Kröger, M., and Weigert, F.
- Staudinger, H., manufacture of hydrocycloacoutchouc, (P.), B., 132.
- Staudinger, H., and Freudenberg, H., auto-oxidation of organic compounds. VI. Thiobenzophenone, A., 1246.
- Staudinger, H., and Freudenberg, H. [with Senn, E., Vendrell, S., and Siegwart, I.], thiobenzophenone, A., 1010.
- Staudinger, H. See also Berl, E., and Society of Chemical Industry in Basle.
- Staudt, E., sterilising, ageing, and bleaching of flour, meal, etc., (P.), B., 209.
- Staudt, W. See Kossel, A.
- Stauffer, L. H., measurement of physical characteristics of soils, B., 63.
- Stauss, H. E., reflexion of X-rays by plane surfaces, A., 574.
- Stay, T. D., Tessier, C. O., and Aluminum Co. of America, apparatus for reclaiming [easily oxidisable] metals [from dross], (P.), B., 788.
- Stearie, E. W. R., and Johnson, F. M. G., solubility of hydrogen in silver, A., 229.
- Stead, J. C. See Owen, B. J., and Sugar Beet & Crop Driers, Ltd.
- Steam Production Corporation, and Curran, F. J., furnaces, (P.), B., 247.
- Stearn, A. E., determination of the equivalent weight of proteins, A., 660.
- Stearn, A. E., and Stearn, E. W., effect of chemical nature of a decoloriser on its action. I. The Gram classification. II. Apparent iso-electric point, A., 1057.
- Stearn, E. W. See Stearn, A. E.
- Stearns, H. A. See Adams, R.
- Stearns, N. D., laboratory tests on physical properties of water-bearing materials, B., 232.
- Stebbins, A. H., concentrator, (P.), B., 40, 628.
- circular-deck concentrator, (P.), B., 73.
- air classifier, (P.), B., 75, 176, 321, 431, 628.
- Stebbins Engineering & Manufacturing Co. See Dunbar, T. L., and Richter, A. F.
- Steche, T., determination of chlorophyll by Willstätter's method, B., 136, 421.
- Steding, A. See Bunte, K.
- Stedman, D. F., vapour equilibrium of aqueous glycerol solutions, A., 590.
- Stedman, E., and Stedman, (Mrs.) E., haemocyanin. V. Oxygen dissociation curve of haemocyanin from the snail (*Helix pomatia*) in dialysed solution, A., 1044.
- Stedman, (Mrs.) E. See Stedman, E.
- Steel, B. F., and Westinghouse Lamp Co., manufacture of [dumet] bimetallic wire, (P.), B., 198.
- Steele, A. R., and Kipping, F. S., organic derivatives of silicon. XXXVII. Production of tetrabenzylsilicane, tribenzylsilyl oxide, and other products by the action of sodium on dibenzyl-silicon dichloride, A., 908.
- Steele, E. G. See Sutton, H. M.
- Steele, L. R., battery electrolyte compound; manufacture of storage batteries, (P.), B., 490.
- Steele, W. L. See Sutton, H. M.
- Steele, W. R. See British Thomson-Houston Co., Ltd.
- Steen, R. E., technique and interpretation of the van den Bergh test [for bilirubin], A., 321.
- Steenbock, H., and Wisconsin Alumni Research Foundation, antirachitic product and process, (P.), B., 767.*
- Steenbock, H. See also Fosbinder, R. J., Hart, E. B., and Kon, S. K.
- Steenhauer, A. J. See Itallie, L. van.
- Steenkamp, J. L., effect of dehydration of soils upon their colloid constituents. I.-III., B., 458.
- Steenstrup, C. See British Thomson-Houston Co., Ltd.
- Stefanovitsch, G. See Naegeli, C.
- Stefavescu, J. See Atanasiu, I. A.
- Steffen, C., jun., preparation of [pure] tricalcium saccharate, (P.), B., 423*.
- Steffenburg, S., new respirometer apparatus, A., 1291.
- Steffenburg, S. See also Euler, H. von.
- Steffens, J. A., dehydration of alcohol, (P.), B., 500*.
- Stefko, W. H., rôle of fat in the human organism (during starvation and in tuberculosis), A., 915.
- Stegeman, G. See Balcar, F. R., and Meyers, L. D.
- Steger, A., and Loon, J. van, composition of ivy seed oil, B., 307.
- Steger, W. See Endell, K.
- Stehberger, K. H., recoil-diffusion and secondary emission of moderately rapid cathode rays from metals, A., 1069.
- Stehli, H. J., sintering of zinc ores, (P.), B., 337.
- preparation of flotation concentrates, (P.), B., 609.
- Steiger, G. See Larsen, E. S.
- Steiger, R. E. See Levene, P. A.
- Steigleder, F. N., removal of drawing ink, (P.), B., 579.
- Steigmann, A., light-sensitivity of dyes. I. and II., A., 602; B., 213, 293.
- reactions of irradiated ergosterol (vitamin-D), A., 926.
- newer photographic problems, B., 141.
- sensitising ripening nuclei of gelatin, B., 875.
- Steimmig, G. See I. G. Farbenind. A.-G.
- Stein, B., apparatus for determining the alcohol in a liquid, (P.), B., 281.
- Stein, B. See also Berliner, R.
- Stein, C., and Société C. M. Stein & Cie., recuperative furnace, (P.), B., 112*.
- Stein, G. See Windaus, A.
- Stein, H., Austin, W. E., Liebowitz, I., and Stein Fur Dyeing Co., Inc., treatment [bleaching] of fur skins, (P.), B., 496.
- Stein, L., and Williew, L. J., manufacture of water-gas of low specific gravity, B., 43.
- Stein, R., bituminous compositions for use as supports exposed to high pressures, (P.), B., 919.
- Stein, W. D., manufacture of bread and other cereal baked foods, (P.), B., 138.
- starch conversion products, (P.), B., 170.
- Stein Fur Dyeing Co., Inc. See Stein, H.
- Steinbach, W. See Ostwald, Wolfgang.
- Steinberg, S. J., assimilation of lavalucose, A., 793.
- Steinberg, S. S., corrosion by acids and rusting of iron containing copper, B., 674.
- Steindorff, A. See I. G. Farbenind. A.-G.
- Steiner, L. E., and Johnston, J., method of radiation calorimetry, and the heat of fusion or of transition of certain substances, A., 844.
- Steinfatt, K. See Wiessmann, H.
- Steinhoff, refractory material for vertical retorts, B., 193*.
- Steinitzer, F., and Loock, P., stable dry mixtures of soluble colloidal metals or metalloids with indifferent materials, (P.), B., 38.
- Steinkopf, W., [cholesterol as parent of petroleum], A., 1211; B., 143.
- Steinkopf, W., and Dudek, H., organic compounds of arsenic. XIII. cyclopenta-*n*-propylpenta-arsine and the thermal decomposition of arseno-derivatives, A., 1266.
- Steinkopf, W., Dudek, H., and Schmidt, S., organic compounds of arsenic. XIV. Tenacity of hydrocarbon residue to arsenic, A., 1230.
- Steinkopf, W., and Schmidt, S., organic compounds of arsenic. XI. Action of thionyl chloride on primary and secondary arsenic acids, A., 654.
- Steinkopf, W., Schubart, I., and Schmidt, S., organic compounds of arsenic. XII. Action of acid chlorides on diphenylarsine, A., 654.
- Steinmetz, A., cooling device for use in the quick vinegar process, (P.), B., 137.
- Steinmetz, M. H., apparatus for determination of sulphur in iron and steel, B., 785.
- Steinmetz, S., removal of the cerealin from grain, (P.), B., 242.
- Steinmetz, K., and Swoboda, F., influence of narcotics on the blood-sugar concentration, A., 1279.

- Steinruck, A. See Plücker, W.
- Steinschneider, L., distillation of oils occurring in the petroleum, tar, and similar industries, more particularly for the production of lubricants, (P.), B., 358.
- Steinwehr, H. von. See Jaeger, W.
- Stetische Gussstahlwerke Aktien-Gesellschaft, non-rusting chromium steel, (P.), B., 19.
- Stelling, O., constitution of hydrogen sulphite compounds of aldehydes and ketones, A., 1217.
- relation between chemical constitution and *K*-absorption spectra. VII. General review, A., 1204.
- K*-series X-ray absorption spectrum of potassium in various compounds, A., 1312.
- X-ray absorption spectra and chemical combination, A., 1312.
- Stelzer, E. See Wislicenus, H.
- Stempfel, E. See De Lapparent, J.
- Stender, W. W., and Ivanov, A. A., electrolytic detinning of scrap copper, B., 268.
- Stengel, W. See Busch, M.
- Stenman, J., exact measurements in the *K*-series of tin, A., 817.
- Stenner, W. See Hahn, G.
- Stenning, W. W., and Minerals Separation North American Corporation, concentration of coal, (P.), B., 116*.
- Stenström, W., and Lohmann, A., effect of X-rays on tyrosine and cystine, A., 1388.
- Stentzel, F. See Glimm, E.
- Steoosky, T. See Seljakov, N.
- Steopoe, A., decomposition of carbon monoxide by reduced copper below 400°, A., 28.
- Stephan, H., chlorinating roasting of burnt ore, (P.), B., 96.
- Stephan, K. See Chem. Fabr. auf Aktien (vorm. E. Schering).
- Stephansen, J., dewatering apparatus for pulp, (P.), B., 2.
- Stephen, H. W., and Wilson, F. J., thiazole derivatives. II., A., 904.
- so-called bithiohydantoins of Frerichs, Förster, and Höller, A., 1385.
- Stephens, C. V. See Vautin, C. T. J.
- Stephens, E. L., Child, A. M., and Bailey, C. H., applications of spectrophotometric methods to baking problems, B., 798.
- Stephens, H. N., oxidation in the benzene series by gaseous oxygen. III. Oxidation of α -phenylcarbinols, A., 285.
- auto-oxidation. I. *cyclo*Hexene peroxide, A., 401.
- oxidation in the benzene series by gaseous oxygen. IV. Mechanism of slow oxidation of saturated hydrocarbons, A., 1233.
- Stephenson, H. H., three fundamental principles of ceramics, B., 570.
- Stephenson, J., coke oven, (P.), B., 150*.
- Stephenson, M., lactic dehydrogenase; a cell-free enzyme preparation obtained from bacteria, A., 549.
- Steppes, F. E. K., and Traun & Söhne, H., manufacture of condensation products obtained from urea and solid polymerides of formaldehyde, (P.), B., 203*.
- Steppuhn, O., and Nolle, J., enzymic processes as the cause of Gottlieb's detoxication of digitalis substances fixed by the heart, A., 548.
- Steppuhn, O., and Timofeeva, A. M., endocrine glands and enzymes of the blood. I. Influence of potassium iodide, iodine, and "iodated albumin" on the catalase of the blood, A., 201.
- Sterkin, E., determination of silver in biological fluids and tissues; [disappearance from, and re-appearance of silver in, the blood of dogs], A., 1399.
- Sterling, F. W., Crooker, H. L., and Dyer Co., B. H., chemical heat storage, (P.), B., 176.
- Sterling, J. R., treatment of solid material for extraction of water, oil, and fatty matter therefrom, (P.), B., 375.
- Stern, A. See Fischer, Hans.
- Stern, E., barium compound of technical interest from starch, B., 169.
- manufacture of starch products, (P.), B., 312*.
- manufacture of casein capable of swelling, (P.), B., 937.
- Stern, F. See Stuber, B.
- Stern, H. J., arsenic in coated papers and boards, B., 227.
- Stern, J. See Haehn, H.
- Stern, L., and Battelli, F., rôle of the catalase-anticatalase system in the animal organism, A., 201.
- Stern, L. See also Rupe, H.
- Stern, M., production of nickel or ferronickel, (P.), B., 412.
- Stern, R., clinical significance of cholesterol in bile and blood-serum. IV. Experimental alteration of cholesterol concentration and p_H in fistula bile, A., 913.
- Stern, R. See also Franke, Adolf.
- Stern, S. See Fichter, F.
- Stern, T. E., precise determination of thermal capacities; molybdenum, A., 1083.
- Sterzl, E., disintegrating, grinding, reducing to fibres, or mixing moist or dry materials, (P.), B., 657.
- Stetson, H. T., and Geromanos, H. W., spectroscopic demonstrator for the exhibition of emission, continuous, and absorption spectra, A., 609.
- Stettbacher, A., pentaerythritol tetranitrate as a military explosive, B., 626.
- Stetter, G., atomic disintegration, A., 4.
- Stetter, J. See Jörg, H.
- Stettiner Chamotte-Fabrik A.-G., ovens for chemical, metallurgical, and like processes, (P.), B., 506.
- Stettiner Chamotte-Fabrik A.-G., and Terres, E., [water-jacket for] shaft furnaces, gas producers, etc., (P.), B., 352.
- Stettiner Chamotte-Fabrik A.-G. vorm. Didier, refuse destructors, (P.), B., 626.
- Stettiner Chamotte-Fabrik A.-G. vorm. Didier, and Terres, E., shaft furnace, gas producers, etc., (P.), B., 627.
- Steuart, D. W., determination of salt in margarine, B., 425.
- Steube, M. See Hantschmann, L.
- Steuber, M. See Meltzer, H.
- Steudel, H., aluminium alloys in motor construction, B., 487.
- Steudel, Hermann, behaviour of vitamin-A, A., 92.
- Steudel, Hermann and Feiser, E., detection of vitamin-A, A., 925.
- Steur, J. P. K. van der. See Bertram, S. H.
- Stevens, A. L., and Stevens Corporation, A. L., operation of open-hearth furnaces, (P.), B., 676.
- Stevens, D. R. See Nicolet, B. H.
- Stevens, E. P., Himmelright, R. J., and American Arch Co., furnace, (P.), B., 247.
- Stevens, F. W., gaseous explosion rates at constant pressure, A., 1331.
- Stevens, H. P., nature of vulcanisation. III., B., 203.
- Stevens, K. R. See Waksman, S. A.
- Stevens, T. S., and Robertson, M. C., synthesis of hydrastolic acid, A., 63.
- Stevens, T. S., and Wilson, J. L., enolisation of homophthalic anhydrides, A., 1374.
- Stevens, W. H. See Gebauer-Fülneegg, E.
- Stevens Corporation, A. L. See Stevens, A. L.
- Stevenson, J. See Robinson, P. L.
- Stevenson, R., and Babor, J. A., determination of volatility of gasoline, B., 43.
- Steward, F. C., evidence for phosphatides in the external surface of plant protoplast, A., 334.
- maintenance of semi-permeability in the plant-cell during leaching experiments, A., 926.
- Stewart, A., jun. See Nordling, W. G.
- Stewart, C. P., and Percival, G. H., calcium metabolism. II. Calcium content of corpuscles, plasma, and serum. III. Calcium and the coagulation of blood, A., 540.
- Stewart, C. R. G., and Western Electric Co., annealing [of metals], (P.), B., 756.
- Stewart, D. W., preparation of calcium and magnesium bisulphite liquors, B., 856.
- Stewart, E. D., spray drying, B., 733.
- Stewart, G. W., X-ray spectra of aliphatic hydrocarbons, alcohols, and carboxylic acids, A., 222.
- X-ray diffraction in liquid normal paraffins, A., 465.
- X-ray diffraction in liquids; comparison of isomerides of *n*-heptane and of certain carbon chains, A., 1079.
- theory of X-ray diffraction in liquids, A., 1312.
- Stewart, G. W., and Mannheimer, M., molecular structure and scattering of X-rays, A., 694.
- Stewart, G. W., and Skinner, E. W., X-ray diffraction in liquids; comparison of certain primary normal alcohols and their isomerides, A., 224.
- Stewart, H. C., and Westmoreland Chemical Color Co., manufacture of copperas [ferrous sulphate crystals], (P.), B., 447.
- Stewart, J. See Pullen, Ltd., J. H.
- Stewart, James (Cambridge), nutritive value of linseed cake, A., 1397.
- Stewart, James (Cambridge). See also Woodman, H. E.
- Stewart, James (London), malting barleys of 1927, B., 312.
- Stewart, J. Q., and Korff, S. A., refractive index of sodium vapour and the width of the *D*-lines in absorption, A., 1310.
- Stewart, L. See Pease, R. N.

- Stewart, R., and Neue Glühlampen G.m.b.H., metallic filaments for electric incandescence lamps, (P.), B., 22.
- Stewart, R. See also Brinjes & Goodwin, Ltd.
- Stewart, T. D., and Cook, V., effect of the cyano-group on the basicity of aliphatic amines as determined in aqueous and alcoholic solutions, A., 992.
- Stiasny, E., and Balányi, D., chrome tanning. VII. Hydrolysis and tanning action of sulphato-chromium sulphates, B., 495.
- Stiasny, E., and Grimm, O., chrome tanning. V. Properties of differently prepared chromium chloride solutions, B., 24.
- chrome tanning. VI. Properties and behaviour of various pretreated chromium sulphate solutions, B., 494.
- Stiasny, E., and Jalowzer, B., tanning of hides and skins, (P.), B., 420.
- Stich, E. G., large-scale production of yeast as fodder, B., 283.
- Sticha, K., Hubáček, J., and Kneifl, J., manufacture of marble substitutes, (P.), B., 607.
- Stickings, R. W. E., and May & Baker, Ltd., manufacture of basic bismuth salts or arylarsinic acids, (P.), B., 503*.
- manufacture of organo-arsenic compounds, (P.), B., 691.
- Stieger, K., and Bensa, F., manufacture of dinitro-derivatives of perylene and its compounds, (P.), B., 922*.
- Stiehr, and Bergold, R., liquid manure, urine, and drainage water, B., 497.
- Stiepel, C., manufacture of fatty acids containing hydroxy-fatty acids, (P.), B., 935.
- Stiepovich, J., and Să, A., indophenol reaction in inorganic chemistry, A., 1107.
- Stievenart, A., apparatus for separating dust from gases, (P.), B., 432.
- Stiles, W., exosmosis of dissolved substance from storage tissue into water, A., 558.
- Still, C., coke-oven doors, (P.), B., 7.
- recovery of sulphuric acid from the acid tar of benzol purification, B., 220.
- distillation of solid fuels, (P.), B., 593.
- purification of benzol fractions, (P.), B., 663.
- Still, C., and Gesellschaft für Kohlentechnik m.b.H., manufacture of sulphur, (P.), B., 52.
- Still, W. J., heat-transmitting tubes, (P.), B., 143.
- Stillman, A. L., and General Fuel Briquette Corporation, manufacture of fuel briquettes, (P.), B., 394.
- Stillwell, F. L., mineral constitution of the Broken Hill lode, A., 268.
- Stillwell, S. T. C., principles of kiln-seasoning of timber. I. Types of commercial kilns in use, B., 232.
- Stimson, B. B., changes in oxygen capacity of the blood of rabbits following administration of nitrobenzene, A., 200.
- Stimson, B. B., and Hrubetz, M. C., changes in the oxygen capacity of rabbit's haemoglobin following partial hepatectomy, A., 1044.
- Stimson, J. C. See Finch, G. I.
- Stinchcomb, G. A., and Barker, E. F., fine structure of three infra-red absorption bands of ammonia, A., 1304.
- Stine, C. M., Coolidge, C., and Du Pont de Nemours & Co., E. I., manufacture of coating compositions containing rubber and drying oils, (P.), B., 376.
- Stine, C. M., and Du Pont de Nemours & Co., E. I., manufacture of coating compositions containing rubber and drying oils, (P.), B., 376.
- Stinson, R., treatment of Spanish moss, (P.), B., 258.
- Stintzing, H., the photographic emulsion and its application in research, B., 141.
- Stirrus, A. See Parow, E.
- Stiven, D., lactic acid formation in muscle extracts. I. Relation-ship between phosphoric ester accumulation and phosphoric ester breakdown and lactic acid formation from glycogen. II. Effect of sodium hexosediphosphate on the rate of ester accumulation during the incubation of glycogen in certain types of extracts. III. Glycolysis in sterile cell-free extracts of muscle, A., 796.
- Stix, E. See Scholl, R.
- Stoa, T. E. See Mangels, C. E.
- Stobrawa, K., preparation of pig iron in highly-heated mixers, (P.), B., 451.
- Stoccs, B., placer mining by direct leaching with cyanide or other solvents, (P.), B., 863.
- Stoces, B. See also Cernik, B.
- Stock, A., danger of mercury and amalgam dental fillings, B., 676.
- Stock, A., and Zimmermann, W., determination of minute amounts of mercury, A., 726.
- Stock, E., determination of colour number of oils, lacquers, and similar products, B., 761.
- Stock, J., and Grasselli Dyestuff Corporation, preparation of 2:3-dichloronitro-1:4-naphthaquinone, (P.), B., 740*.
- Stocker, E., and Chomische Fabrik vorm. Sandoz, increasing the affinity of animal fibres for dyestuffs, (P.), B., 296*.
- Stockfish, K., natural gas, A., 1349.
- Stockhausen, F., and Rothenbach, E. F., comparative determinations of hydrogen-ion concentration of worts and beers by the hydrogen and quinhydrone electrodes, B., 871.
- Stockhausen, F., and Windisch, F., influence of temperature of storage of yeast under water on fermentation, reproduction, and acid-formation in wort, B., 31.
- relation between time and temperature of storing and their combined influence on fermentation, increases and acid production in varied length of keeping of beer yeast under water at different temperatures, B., 207.
- uniform behaviour of bottom-fermentation beer yeast in respect of fermentation, reproduction, and acid-formation, on storage under water at various temperatures, B., 424.
- electrocolorimeter for the photo-electric measurement of malt colours, B., 500.
- fermentation carbon dioxide, B., 685.
- Stockholders' Syndicate. See Blumenberg, H., jun.
- Stockholms Benmjölsfabriks Aktiebolag, manufacture of glue in small pieces, e.g., granules, drops, (P.), B., 829.
- Stockholms Superfosfat Fabrik Aktiebolaget, treatment of phosphates or phosphate-containing substances decomposed by sulphuric acid, (P.), B., 498.
- Stockinger, F. See Depth-O-Tone Corp.
- Stocks, H. B., behaviour of soaps of various oils on dilution, B., 130.
- Stoddard, W. B., and Hoehstadter, I., formation of sodium tungstate, (P.), B., 157.
- Stöck, K., afterglow of oxygen and nitrogen in air, A., 811.
- Stoescu, (Miss) V. See Dănăila, N.
- Stoermer, R., and Schenck, F. [with Pansegran, E.], degradation of truxillic and truxinic acids. XIII, A., 174.
- Stoesser, W. C. See Raiford, L. C.
- Stöwener, F. See I. G. Farbenind. A.-G.
- Stokes, W. E., and United States Processes, Inc., treatment of ores, (P.), B., 609.
- Stokes, W. H. See Courtaulds, Ltd.
- Stoklasa, J., assimilation of biogenic elements by the roots of crops, B., 723.
- Stoklasa, J., and Pěnkava, J., biology of uranium, A., 561.
- Stoklasa, J., Pěnkava, J., and Bares, J., effect of radioactivity on chlorophyll-containing or chlorophyll-free cells, A., 558.
- Stokoe, W. N., rancidity of coconut oil produced by mould action, A., 335.
- Stolk, (Mlle.) van. See Dejust, L. H.
- Stolk, D. van, Dureuil, E., and Heudebert, formation and destruction of vitamin-D during irradiation of ergosterol, A., 1406.
- Stoll, A., Kussmaul, W., and Chemische Fabrik vorm. Sandoz, oxidation of aldoses, (P.), B., 137.
- Stoll, E. W., apparatus for calcining cement, lime, dolomite, magnesite, etc., and for agglomerating ores, (P.), B., 39.
- Stoll, L., influence of emarex (M.R.X.) on the physical properties of vulcanised rubber, B., 132.
- transformation temperature for rubber at approximately 60—80°, B., 132.
- Stoll, M. See Ruzicka, L.
- Stollé, R. [with Merkle, M.], Curtius rearrangement of carbamyl azides; formation of benzopyrazolones and bimolecular carbonylhydrazines. III, A., 1142.
- Stollenwerk, W., and Wrangell, M., von, retrograde adsorption of colloidal ferric hydroxide, A., 358.
- Stommel, H. See Kehren, M.
- Stone, H. G., subliming apparatus, (P.), B., 801.
- Stone, H. G., Jacobson, B. H., and Klipstein & Sons Co., E. C., manufacture of useful products by means of Friedel and Crafts reaction [o-benzoylbenzoic acid], (P.), B., 152*.
- Stone, J. B., and Alsborg, C. L., rennin coagulation of milk; effect of hirudin, heparin, kephalin, and removal of fat, A., 1054.
- Stone, J. E. See Blake, H. D.
- Stone, J. F. See Kohler, E. P.
- Stone & Co., Ltd., J., and Maybrey, H. J., aluminium alloys, (P.), B., 234.

- Stoner, C. M., and Wolf Co., pulveriser, (P.), B., 2.
- Stoner, E. C., distribution of electrons among atomic levels, A., 677.
- Stoodley, L. G. See Carpenter, L. G.
- Stoody, W. F., [welding] alloy, (P.), B., 527.
- Stoops, B. I., and Hercules Powder Co., impregnation of absorptive material for use in explosives; blasting explosive, (P.), B., 626.
- Stoops, W. N. See Smyth, C. P.
- Stoppel, F. See Tillmans, J.
- Storoh, H. H., and Roessler & Hasslaeher Chemical Co., synthesis of methanol [methyl alcohol], (P.), B., 885.
- Storck, A. See Meyer, Rudolf, and Rippel, A.
- Storer, T., and Taylor, C. J. A., manufacture of a red oxide of iron, suitable for use as a pigment, (P.), B., 531.
- Storey, O. W., graphitic oxide and the Brodie reaction, B., 249.
- Storey, C. W. See also Brown, B. K.
- Storey, R. C. See Perkin, A. G.
- Story, Le R. G., and Snow, R. D., phenols in petroleum distillates, B., 394.
- Storz, M., rhythmic phenomena in stones; rhythmic conditions, A., 953.
- Storz, M. See also Ramann, E.
- Stoughton, B. See Moyer, M. L.
- Stoughton, R. W. See Corson, B. B.
- Stout, L. E., and Whitaker, G. C., manganese in steel and pig iron: volumetric determination by the vanadate method, B., 233.
- Stover, N. M., diphenylcarbazide as a test for chromium, A., 1206.
- Stow, A. A. See Thomas, A. J.
- Strachan, J., hydration of cellulose in papermaking, B., 10.
- Strache, F. See Tillmans, J.
- Strache, H., working of water-gas and double-gas producers, (P.), B., 262.
- Strache, H., and Brandl, A., carbonyl value of wine, B., 383.
- Strache, H., and Löffler, H., Strache-Kling explosion calorimeter, Löffler type, B., 1.
- Strack, E. See Wrede, F.
- Strack, O., and Pfälzische Chamotte- & Thon-Werke Schiffer & Kircher Akt.-Ges., heat-exchanging structure for air heaters, (P.), B., 771.
- Strada, M. See Natta, G.
- Stradling, R. E., effects of moisture changes on building materials, B., 928.
- Strahler, H. See Seeliger, R.
- Strafford, N. See British Dyestuffs Corp., Ltd.
- Strafford, W. W., and Fuelite Co., Ltd., manufacture of carbonised fuel, (P.), B., 397*.
- Straight, H. R., combined drying and burning kiln [for ceramic ware], (P.), B., 264.
- forming ceramic ware, (P.), B., 817.
- Strain, H. H., benzyldeneaniline and benzyldene-*p*-toluidine as ammonaldehyde-acetals, A., 1134.
- Stranathan, J. D., dielectric constants of dilute solutions of polar liquids in non-polar solvents, A., 576.
- Strand, A. L., comparison of the toxicity and diffusion in a column of grain of chloropierin, carbon disulphide, and carbon tetrachloride, B., 535.
- Strang, E. See Koller, G.
- Strange, C. H. See Downs, C. R.
- Stransky, I. N., theory of crystal growth, A., 1178.
- Stransky, S., production of decorative leather from fish skins, (P.), B., 534.
- Stransky, S., and Hansgirt, F., cracking of hydrocarbon oils or their distillates by distillation under pressure, (P.), B., 358.
- refining low-boiling distillates of earth and mineral oils, (P.), B., 632.
- Stratford, C. W., process and apparatus for evaporating [hydrocarbon] oils, (P.), B., 81*.
- Stratonova, T. A. See Vosnessenski, S. A.
- Stratta, R., and Mangini, A., fluorescence of Italian olive oils in Wood's light, B., 646.
- Straub, E., and Griffiths, J., process of photogravure, (P.), B., 213.
- Straub, F. See Society of Chemical Industry in Basle.
- Stranb, J., determination of lactic acid in milk, B., 33.
- report of the Government Laboratory at Amsterdam for 1927, B., 386.
- Stranb, J., and Peper, J. P., chemical examination of army biscuit, B., 727.
- Straub, J., and Soep, L., osmotic concentration of secretions, A., 440.
- Straub, J. See also Bodnár, J.
- Straumanis, H. See Tammann, G.
- Straumanis, M., dissolution velocity of zinc in a current of sulphuric acid, A., 27.
- Straumanis, M. See also Tammann, G.
- Strauss, B., and Hinnüber, J., periodic passivity of chromium and chromium alloys, and the influence of temperature on passivity potentials, A., 1098.
- Strauss, E. See Ottensooser, F.
- Strauss, F. [with Heyn, W.], distyryl ketone and triphenylmethane. XIII. Coloured compounds of unsaturated ketones with acids, A., 65.
- Strauss, K., direct production of liquid pig iron and steel from finely-divided materials, (P.), B., 19.
- Strebing, R., and Zins, W., gravimetric and volumetric micro-determination of bismuth, A., 39.
- determination of bismuth as oxyiodide, A., 388.
- Strecker, O. C., production of cellulose by decomposition of vegetable fibres, (P.), B., 295, 364*.
- Strecker, W., and Daniel, W., spectrochemical investigation of esters of selenious and selenic acid, A., 735.
- Street, A. A. See Odling, M.
- Street, J. N., and Adkins, H., effect of certain β -substituents in the alcohol on affinity and reactivity in acetal formation, A., 274.
- Streitwolf, K. See I. G. Farbenind. A.-G.
- Strell, M., biological purification of water for brewing, B., 174.
- Strobel, A., and Scharrer, K., iodine as plant nutrient, A., 561.
- Strobel, A., and Schropp, W., potash manures and their influence on soils, B., 723.
- Strobel, A. See also Scharrer, K.
- Strobel, H. See Boehringer Sohn, C. H.
- Stroek, L. W. See Leffmann, H.
- Ströder, E. See I. G. Farbenind. A.-G.
- Stroeve, W. D. See Zarfel, C.
- Strohal, M., quantitative analysis of cations without the use of hydrogen sulphide, A., 723.
- Strohecker, R., neutralisation of milk and its detection, B., 687.
- Strohenger, A. P. See Quasi-Arc Co., Ltd.
- Strong, H. W., lignocellulose of Victorian mountain ash (*Eucalyptus regnans*), B., 294.
- action of chlorine on jute fibre, B., 781.
- Strong, J. D., stress-strain curves for plastic sulphur and raw rubber at various temperatures, B., 709.
- Stroud, C. M. See Gorham, F. D.
- Strouse, G. C. See Evans, W. L.
- Strum, L., mass deficiencies and nuclear dimensions, A., 1301.
- a possible generalisation of the Planck radiation law, A., 1303.
- Strunk, E., and Reppman, A., furnace roofs, (P.), B., 659.
- Struthers, (Miss) A. M. See Robertson, A.
- Strutt, M. J. O., wave mechanics of the atom lattice, A., 811.
- Struyk, A. P. See Kluyver, A. J.
- Strzelczyk, B. See Wartenberg, H. von.
- Stuart, G. L. See Orr, J. B.
- Stuart, H. A., variation with temperature of the dielectric constants of gases and vapours. I. Carbon dioxide and air, A., 460.
- variation of dielectric constant of some gases with temperature at different pressures, A., 815.
- Stuart, J. M. See Bengough, G. D.
- Stuart, M., base exchange and the formation of petroleum, A., 730.
- Stubbs, J. R., production of uniform stains in the Gutzeit test for arsenic, B., 89.
- Stubbs, J. R. See also Elsdon, G. D.
- Stuber, B., and Lang, K., blood coagulation. XVI. Glycolysis in an artificial clotting mixture (fibrinogen + thrombin). XVII. Displacement of p_H during clotting. XVIII. Influence of hypo- and hyper-pnea on clotting, A., 193.
- glycolysis and blood coagulation, A., 193.
- Stuber, B., and Stern, F., methylating function of the thyroid, A., 206.
- Stuber, E., and Kljatschkina, B., determination of strychnine as silicotungstate, A., 532.
- Studiengesellschaft für Nutzbarmachung der schweiz. Erzlagstätten, production of fused cements of predetermined setting time, (P.), B., 571.
- Studiengesellschaft für Wirtschaft & Ind. m.b.H., cementing of porcelain; cementing of porcelain and metal; cementing of porcelain, and porcelain and iron, (P.), B., 193.
- chromium-plating of iron articles, (P.), B., 576.

- Stühmer, G. See König, W.
- Stuer, C. B. See Rhenania-Kunheim Verein Chem. Fabr. A.-G.
- Stuhlman, O., possible relation between radiation and ionisation potentials of iron, A., 1297.
- Stuhlman, O., *jun.*, electron theory of valency based on an extension of the Bohr-Stoner electron distribution in atoms, A., 690.
- Stuhlmann, H. See Hock, H.
- Stull, A. See Bogert, M. T.
- Stumpen, H., determination of the absorption coefficient of various metals and organic compounds in the short-wave X-ray region, A., 1078.
- Stumper, R., formation of boiler scale, B., 732.
- Sturges, W. S. See Parsons, L. B.
- Sturm, E. See Fischer, Hans.
- Sturtevant, T. J., and Sturtevant Mill Co., air separator, (P.), B., 590.
- Sturtevant Engineering Co., Ltd., and Williams, F. W. R., burners for pulverised fuel, (P.), B., 840.
- Sturtevant Mill Co. See Sturtevant, T. J.
- Stutzer, O. See Döring, T.
- Style, O. W. G. See Ridyard, H. N.
- Suarez, E. See Lagrange, E.
- Subbarow, Y. See Fiske, C. H.
- Subox Akt.-Ges. Electro Chem. Fabr. Metall- & Hüttenprodukte. See Schiess, H. J.
- Subrahmaniam, G., viscosity of metals; bismuth, A., 11.
- elastic constants of single-crystal aluminium wire, A., 1316.
- Subrahmanyan, V., biochemistry of water-logged soils. I. Effect of water-logging on the different forms of nitrogen, on the reaction, on the gaseous relationships, and on the bacterial flora. II. Presence of a deaminase in water-logged soils and its rôle in the production of ammonia, B., 26.
- determination of dissolved oxygen in water, B., 38.
- Subramaniam, V. See Challenger, F., Coppock, P. D., and Walker, T. K.
- Sucharda, E., 5:6:8-trihydroxybenzo-1:10-naphthyridine, and its oxidation to 1:8-naphthyridine derivatives, A., 186.
- oxidation of quinoline-8-sulphonic acid, A., 302.
- Sucharda, E. See also Bobrański, B., Klisiecki, L., Konopnicki, A., and Plazek, E.
- Sucksmith, W., Potter, H. H., and Broadway, L., magnetic properties of single crystals of nickel, A., 110.
- Suezek, R., manufacture of compressed edible tablets, (P.), B., 943.
- Süsskind, B., terpeneol content of the turpentine obtained in the preparation of terpin hydrate, B., 340.
- Süsskind, B. See also Magidson, O.
- Süllwald, A., citric acid-soluble phosphate in basic slag, B., 421.
- Suffern, E. S., Gasified Fuel, Ltd., Hazelhurst, H. E., and Margeson, O., furnaces or gas-producers burning pulverised solid or liquid fuel, (P.), B., 319.
- Suga, T. See Dieke, G. H., and Takamine, T.
- Sugano, T., physiology of the foetus, A., 439.
- Suganuma, I., constituents and genesis of a few minerals produced from hot springs and their vicinities in Japan. I. Akita hokutolite. II. Composition and genesis of soluble sulphates produced near a sulphur spring, A., 612.
- constituents and genesis of a few minerals produced from hot springs and their vicinities in Japan. III. Calcium carbonate minerals deposited from effervescent springs, A., 731.
- Suganuma, S. See Keimatsu, S.
- Sugar Beet & Crop Driers, Ltd., Melrose, W. K., and Stead, J. C., production of sugar from dried beet, (P.), B., 725.
- Sugasawa, S., amino-acids. V. Synthesis of N-alkylglutamic acids, A., 874.
- Sugata, H., and Koch, F. C., sulphur metabolism of yeast, A., 204.
- Sugden, S., parachor and chemical constitution. VIII. Ring-chain valency tautomerism in phorone derivatives, A., 416.
- Sugden, S. See also Etridge, J. J., Freiman, A., and Garner, F. B.
- Sugie, S., penetrability of various rays through glass. VI. Penetrability of ultra-violet rays through window-glass; influence of iron and manganese, B., 262.
- Sugimoto, excretion of vitamin-B in urine, A., 1405.
- Sugimoto, Fujimaki, Momoyeda, Tanaka, and Vasuda, influence of methods of cooking on the absorption of rice, A., 1397.
- Sugimoto, Higuchi, Momoyeda, and Tanaka, effect of the degree of polishing of rice on its absorption, A., 1397.
- Sugimoto, K., iodine in gorgonian corals, A., 541.
- Sugiura, J. See Robertson, A.
- Sugiura, K., and Benedict, S. R., fractionation of the Rous chicken sarcoma, A., 441.
- Sugiura, Y., characteristic of the hydrogen molecule in the normal state, A., 345.
- Suhreke, W. See Köhne, H.
- Suhrmann, R., new photo-electric phenomenon with thin sheets of alkali metals, A., 680, 1068.
- Suida, H., recovery of concentrated acetic acid from dilute acetic acid, (P.), B., 808, 921.
- Suida, H., and Titsch, H., beech wood; acetylation of beech wood and hydrolysis of the acetylated product, A., 1227.
- Suiffet, P., bactericidal power of some preparations of iodine, B., 172.
- Suiffet, P. See also Canals, E.
- Sullivan, B., and Near, C., lipid phosphorus of wheat and its distribution, B., 621, 910.
- Sullivan, M. X. See Clark, W. M.
- Sullivan Machinery Co. See Nelson, S. T.
- Sulman, H. L., and Picard, H. F. K., extraction of tin from ores, etc., (P.), B., 337.
- Sulzbacher, M. See Schroeter, G.
- Sulzberger, N., photography, (P.), B., 317.
- Sulzer Frères Société Anonyme, apparatus for storing volatile fluids, (P.), B., 431.
- installations for dry-cooling of coke [in trucks], (P.), B., 703.
- Sumet Corporation. See Judy, W. H.
- Sumi, M., chemical constituents of the spores of *Aspergillus oryzae*, A., 927.
- ergosterol from the mushroom *Cortinellus shiitake*, A., 927.
- Summers, D. B. See Beebe, R. A.
- Summers, L. L. See Deppé, W. P.
- Sumner, J. B., and Hand, D. B., crystalline urease. II., A., 329.
- Sumner, J. B., and Holloway, R. G., crystalline urease. III. Variations in jack bean meal, A., 1401.
- Sumpter, C. L. See Fletcher, G. H.
- Sun-Maid Raisin Growers of California, treatment of dried fruit, (P.), B., 501.
- Sun Oil Co. See Maitland, H. T., and Pew, A. E., *jun.*
- Sundberg, T., approximate determination of butter fat and coconut oil in fat mixtures, B., 824.
- Sunder, C., ricinic acid, B., 902.
- Sunder, C., and Kempf, A., separation of zinc formaldehyde-sulphoxylate from zinc formaldehyde-bisulphite, B., 891.
- Sunderland Forge & Engineering Co., Ltd., and Blair, G., centrifugal separators, (P.), B., 879.
- Sunderman, F. R. See Van de Water, F. C.
- Sundstrom, C., Terziev, G. N., and Solvay Process Co., production of hydrated sodium carbonate, (P.), B., 90.
- Suner, S. P., determination of the alkali reserve of the blood, A., 317.
- buffering power of urine, A., 320.
- relation between colloids, surface tension, and p_H of urine, A., 320.
- Sunier, A. A., rate of evaporation of molten cadmium in a high vacuum, A., 1315.
- Sunier, A. A., and Hess, C. B., solubility of silver in mercury, A., 470.
- Sunier, A. A., and Rosenblum, C., latent heat of fusion of naphthalene from new solubility data, A., 944.
- Super Coal Process Co. See Bowen, R.
- Superheater Co., and Armacost, W. H., heat exchangers, (P.), B., 351.
- Superior Sheet Steel Co. See Theiss, H. W.
- Supniewski, J. V., amino-derivatives of isoprene and of ethyl butyl ether, A., 48.
- synthesis of local anesthetics of the novocaine group, A., 49.
- action of vanadium salts on Grignard's reagents, A., 50.
- chemical constitution and pharmacological properties of the methylglyoxalines, A., 1052.
- Supniewski, J. V., and Salzberg, P. L., [preparation of] allyl cyanide, A., 624.
- Supniewski, J. V. See also Salzberg, P. L.
- Suponitzka, F. See Bricker, F.
- Suranyi, J. See Meyerhof, O.
- Sure, B., dietary requirements for fertility and lactation. XIII. Storage of fat-soluble vitamins for lactation; cod-liver oil requirements of suckling young. XIV. Biological determination of vitamin-B requirements for lactation. XV. Relation to infant mortality of inefficient secretion of vitamin-B by lactating rat, A., 555.

- Sure, B., dietary sterility associated with vitamin-A deficiency, A., 1405.
 vitamin-A content of wheat oil, A., 1405.
 Surface Combustion Co., furnaces or kilns for heating goods, (P.), B., 39.
 annealing furnaces, (P.), B., 247.
 Surface Combustion Co. See also Hepburn, W. McM.
 Surface Combustion Co., Inc. See Harris, W. J., *jun.*
 Surmont, H., and Provino, R., nephelometric determination of peptones in sodium chloride solutions (1 in 1000), A., 665.
 nephelometric determination of protein derivatives in gastric fluids, A., 665.
 Surmont, H., and Swyngedauw, J., pathological significance of the variations of the free and latent acid in gastric fluids, A., 667.
 Surridge, R., manufacture of material for use in repairing punctures in the air-tubes of pneumatic tyres and other pneumatically inflatable articles, (P.), B., 239.
 Susich, G. *von.* See Mark, H., and Náráz-Szabó, S. *von.*
 Suski, P. M., can the growth-promoting influence of iron be increased by ultra-violet irradiation? A., 1275.
 Susquehanna Collieries Corporation, separation of subdivided materials, (P.), B., 352.
 Susquehanna Collieries Co. See also Grant, R. F.
 Susser, E., determination of camphor in alcoholic camphor solutions, B., 730.
 Sutcliffe, J. A., and Cobb, J. W., factors influencing reactivity of coke. I (a). Carbonising temperature and heat-treatment in nitrogen, B., 555.
 Suter, C. M., and Dains, F. B., reduction of aromatic nitro-compounds with sodium alkoxides, A., 1366.
 Sutherland, R. L. See Lavine, I.
 Sutra, R. See Hasenfratz, V.
 Sutter, H. See Wieland, H.
 Sutton, C. R. See Richardson, E. G.
 Sutton, G. D. See Bleachers' Assoc., Ltd.
 Sutton, H. M., Steele, W. L., and Steele, E. G., separation of dry materials, (P.), B., 878.
 Sutton, R., causes of failure in heat-resisting alloys, B., 126.
 Sutton, S. D., and Veedip, Ltd., manufacture of rubber articles, (P.), B., 650.
 Suwa, T., auto-ignition temperature of Diesel oil, B., 776.
 Suwa, T. See also Ban, Y.
 Suzue, M., physico-chemical properties of the cell membrane. IV. Change in the permeability of red blood-corpuscles [caused] by hemolytic agents. V. Observations on the hemolytic process with the ultramicroscope, A., 787.
 Suzuki, B., and Hamamura, Y., bios. III. and V., A., 177, 801.
 Suzuki, B., and Maruyama, T., reversibility of enzyme action. I., A., 201.
 Suzuki, B., and Masuda, Y., separation of glycerides. III. Train oil, A., 153.
 separation of glycerides. V. Cod-liver oil, A., 736.
 Suzuki, B., and Yokoyama, Y., separation of glycerides. I. Linseed oil. II. Soya-bean oil, A., 152.
 separation of glycerides. IV. Oil of silkworm pupa, A., 736.
 Suzuki, C., methemoglobin formation. I. Effect of certain gases, acids, alkalis on the production of methemoglobin by chemicals. II. Methemoglobin production by chemicals *in vivo*, A., 314.
 Suzuki, K., egg-yolk oil, A., 664.
 Suzuki, K., and Kaishio, Y., colorimetric determination of histidine, A., 784.
 Suzuki, K. See also Iimori, S.
 Suzuki, M., abrasion in carbon steels, B., 713.
 Suzuki, S., thermo-dissociation of atom-nuclei, A., 344.
 Suzuki, S. See also Abderhalden, E., Hirao, T., and Komatsu, S.
 Suzuki, T., and Fukushima, S., molecular constitution of organic desensitisers, B., 549.
 Suzuki, T., and Kasai, K., crumbling of fused masses in the system calcium oxide-alumina-silica, A., 131.
 Suzuki, T., Sakurai, S., and Zaidan Hojin Rikagaku Kenkyujo, production of a new acid and its salts strongly absorbing ultra-violet rays, (P.), B., 808*.
 Suzuki, T. See also Hirao, T.
 Suzuki, V., Makahara, W., and Hashimoto, N., reproductive failure of white rats on synthetic diets, A., 206.
 Švagr, E., Lukas, J., and Jilek, A., composition of wines of the Malva type, B., 345.
 Svanoë, H., and Ammonia Corporation, temperature control in synthetic production of ammonia and the like, (P.), B., 746.
 Švec, F. See Partos, A.
 Svěda, J., rare earths, A., 971.
 Svedberg, T., determination of mol. wt. by means of the centrifuge, A., 563.
 Svedberg, T., and Chirnoaga, E., mol. wt. of hæmocyanin, A., 783.
 Svedberg, T., and Lewis, N. B., mol. wt. of phycoerythrin and phycocyan, A., 533.
 Svedberg, T., and Nichols, J. B., application of the oil turbine type of ultra-centrifuge to the study of the stability region of carbon monoxide-hæmoglobin, A., 191.
 analytical centrifuge [for colloids], (P.), B., 112.
 Svensen, E., molecular statistical thermodynamics, A., 1327.
 Svenska Aktiebolaget Mono. See Rodhe, O.
 Svensson, G. See Scheele, C. *von.*
 Svensson, K. J., and Norling, K. A. P., centrifugal treatment of liquids, (P.), B., 217*.
 centrifugal separating machine, (P.), B., 774*.
 drum for centrifugal separating apparatus, (P.), B., 916*.
 Svizuin, A., stationary nickel catalyst for a continuous hydrogenation process, A., 1196.
 Swaetichin, T. See Billmann, E.
 Swan, J., effect of silicon on tungsten magnet steel, B., 409.
 Swan, Hunter, & Wigham Richardson, Ltd., and Young, H. J., regeneration or purification of lubricating oils, (P.), B., 633.
 Swann, S., *jun.* See Keyes, D. B.
 Swann, W. F. G., recent theories of the atom, A., 1170.
 Swann, W. J. N. See Radcliffe, L. G.
 Swanson, E. E., and Hargreaves, C. C., standardisation and stabilisation of nux vomica, gelsemium, and veratrum, and the hydrogen-ion concentration factor. IV., B., 284.
 Swarbrick, T., physiology of fruit trees. II. Effects of ringing, double ringing, and dis-budding on the starch content and cambial activity of two-year-old apple shoots, A., 558.
 Swartz, C. E., certain alloys of the lead-tin-cadmium system and their use as solders, B., 526.
 Swartz, C. E., and Krauskopf, F. C., formation and decomposition of ferrite, A., 605.
 Swartz, F. C. See Jones, D. B.
 Swarup, J. See Krishna, S.
 Swearingen, L. E., physical properties of aqueous hydroxybenzene solutions, A., 703.
 physical properties of phenol in benzene, A., 1181.
 Swearingen, L. E., and Reyerson, L. H., catalytic activity of metallised silica gels. III. Synthesis of water, A., 252.
 Swearingen, L. E. See also Reyerson, L. H.
 Sweeney, J. S., effect of toxemia on tolerance for dextrose and on the action of insulin, A., 554.
 Sweeney, W. J., thermodynamic study of fundamental corrosion reactions, B., 526.
 Sweeney, W. T. See Hidnert, P.
 Sweet, A. T., Rice, W. G., Gundlach, H., and Woodworth, P. B., metallurgical separator, (P.), B., 715.
 Sweetland, E. J., apparatus for filtering, (P.), B., 506.
 filter, (P.), B., 658, 773.
 gas diffuser, (P.), B., 659.
 Sweetman, M. D., and Palmer, L. S., insects as test animals in vitamin research. I. Vitamin requirements of the flour beetle, *Tribolium confusum*, Duval, A., 676.
 Swerina. See Zwërina.
 Swett, C. E., and United States Envelope Co., treatment of transparent material [celluloid], (P.), B., 259.
 Swiatkowski, H. [with Bomberg, P.], comparative plant chemistry. XIX., A., 93.
 Swiatkowski, H. [with Romanofsky, W.], comparative plant chemistry. XIX., A., 93.
 Swiatkowski, H. [with Scherzer, C. L.], comparative plant chemistry. XIX., A., 93.
 Swiatkowski, H., and Zellner, J., comparative plant chemistry. XVIII. *Carex flacca*, Schreb., A., 93.
 Swiatkowski, H. See also Huppert, E.
 Swientoslawski, W., differential ebulliscope, A., 40.
 methods of determining the heat equivalent of calorimetric bombs, A., 133.
 applications of a new ebulliscope, A., 502.
 accuracy of Stohmann's thermochemical data, A., 1329.
 Swientoslawski, W., and Chorazy, M., ignition point of wood charcoals, B., 660.
 absorption of pyridine vapour by Upper Silesian coals, B., 916.
 Swientoslawski, W., and Dorabalska, (Mlle.) A., adiabatic microcalorimeter for radiological researches, A., 388*.

- Swientoslawski, W., and Roga, B., apparatus for determining the ignition point of coke and of technical carbon, B., 660.
 ignition points of active charcoals, B., 660.
- Swientoslawski, W., and Starczewska, H., effect of certain corrections on the results obtained for the heat of combustion of organic compounds, A., 845, 1329*.
- Swift, E. H. See Schott, H. F.
- Swift, O. P. See Dean, F. C.
- Swim, F. R. See Mellon, M. G.
- Swindells, F. E., phosphorescence of calcium tungstate induced by X-rays, A., 574.
- Swinden, T., and Johnson, P. H., chromium steel rails, B., 409.
- Swingle, H. S., chemical changes in dusting mixtures of sulphur, lead arsenate, and lime during storage, B., 380.
- Switz, T. M. See Farmer, E. H.
- Swoboda, F. See Steinmetzer, K.
- Swope, G. See Mohlman, F. W.
- Sworykin, A., [solubility of natural calcium sulphate hemihydrate], A., 471.
- Sworykin, A. See also Tammann, G.
- Sworykin, V. K. See Westinghouse Electric & Manufacturing Co.
- Swyngedaau, J., permanently saturated electrode for p_H determination, A., 143.
- Swyngedaau, J. See also Polonovski, Michel, and Surmont, H.
- Sydow, G. See Riesenfeld, E. H.
- Sykes, C. See Allibone, T. E.
- Sykes, W. P. See British Thomson-Houston Co., Ltd.
- Sym, E. A. See Przylecki, S. J.
- Symes, T. E. See Glasstone, S.
- Symmes, E. M. See Smith, Roscoe B.
- Symons, E. B., crushing apparatus, (P.), B., 658.
- Symons, G. E. See Hatfield, W. D.
- Syndicat Franco-Neerlandais, regeneration of rubber contained in the beads of used tyres, etc., (P.), B., 238.
- Syndicat Franco-Neerlandais. See also Danier, C.
- Syniowski, V., diastase. IV. Extractable and non-extractable α -diastase content of different kinds of cereals, A., 328.
- Synthetic Ammonia & Nitrates, Ltd., and Bramwell, F. H., heat exchangers for use in catalytic apparatus, (P.), B., 627.
- Synthetic Ammonia & Nitrates, Ltd., and Ewan, T., production of hydrocyanic acid from formamide, (P.), B., 640.
- Synthetic Ammonia & Nitrates, Ltd., and Franklin, R. G., catalysts for the catalytic production of methyl alcohol and other oxygenated organic compounds from oxides of carbon and hydrogen, (P.), B., 523.
 production of methyl and other alcohols and preparation of catalysts therefor, (P.), B., 634.
- Synthetic Ammonia & Nitrates, Ltd., and Gordon, K., production of gaseous fuels, (P.), B., 252.
- Synthetic Ammonia & Nitrates, Ltd., and Horsley, G. F., separation and recovery of olefines from gases containing same, (P.), B., 560.
- Synthetic Ammonia & Nitrates, Ltd., and Hughes, J., carrying out chemical reactions in which reaction gases are circulated, (P.), B., 670.
- Synthetic Ammonia & Nitrates, Ltd., and Humphrey, H. A., introduction of materials into high-pressure apparatus, (P.), B., 216.
 production of water-gas and hydrogen, (P.), B., 297.
 introduction of semi-liquid materials into high-pressure vessels, (P.), B., 321.
- Synthetic Ammonia & Nitrates, Ltd., and Mitchell, A. E., fertiliser, (P.), B., 169.
- Synthetic Ammonia & Nitrates, Ltd., and Slade, R. E., steam distillation of coal, etc., (P.), B., 6.
- Synthetic Ammonia & Nitrates, Ltd., Slade, R. E., Burstall, A. F., and Carey, W. F., utilisation of liquids for effecting transfer of energy or matter or like purposes, (P.), B., 74.
- Synthetic Ammonia & Nitrates, Ltd. See also Smith, P. A.
- Syrkin, J. K., determination of dipole moments from critical data, A., 936.
- Sysoev. See Schukarev, A. N.
- Sysoiev, A. N. See Budnikov, P. P.
- Sytschev, G. D., crystallisation and absorption of moisture by quaternary pyridine bases, A., 772.
- Szabó, G. See Friesz, J.
- Szarvasy, I., production of carbon electrodes, (P.), B., 252, 595*.
- Szczeniewski, S., reflexion of electrons, A., 932.
- Szebellédy, L., determination of nitrates. I and II, A., 498, 979.
 detection of copper in presence of iron, A., 1347.
- Szebellédy, L., Prussian-blue and Turnbull's-blue reactions [in presence of fluoride], A., 1347.
- Szegő, L., absorption spectra and constitution of azoxy-compounds, A., 1367.
- Szegő, L. See also Cambi, L.
- Szegvári, A. See Gábor, F., Klein, A., and Klein, P.
- Szek, J. T., depolariser, (P.), B., 130.
- Szélenyi, G., and Gömöry, A., dry distillation of lignin obtained from beech, oak, and birch, B., 354.
- Szelöczey, J., action of caffeine on the water absorption of colloids, A., 701.
- Szelöczey, J. See also Simon, A.
- Szikla, G., and Rozinek, A., gasification of fuel, (P.), B., 631.
 fuel-dust furnace, (P.), B., 779*.
- Szivenessy, G., and Richartz, M., magnetic double refraction of liquid mixtures, A., 943.
- Szold, L. See Bauer, Emil.
- Szűcs, J., cultivation of edible fungi [mushrooms], (P.), B., 136.
- Szyszkowski, B. von, formation of complexes between substances dissolved in non-associated solvents, A., 239.
- Szyszkowski, B. von, and Skapski, A. von, application of the method of partition coefficients to the determination of the activity coefficients of the dissociated and undissociated fractions of salicylic acid in neutral salt solutions, A., 1327.

T

- Tabei, S. See Uemura, T.
- Taber, G. H., jun., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 358.
- Tachi, I. See Shikata, M.
- Tacke, B., [manurial] investigations at the Königsmoor experimental station, B., 135.
 relationship between the sodium chloride content of soils and plant growth, B., 279.
- Tacke, B., Arnd, P., Siemers, W., and Saffron, J., acidity of moorland soils, B., 311.
- Tadokoro, T., Abe, M., and Watanabe, S., sex differences of proteins in animals and plants. I. Sex differences of muscle- and serum-proteins, A., 195.
 specificity of muscle- and serum-proteins of animals. I., A., 664.
- Tadokoro, T., Tsuji, T., and Watanabe, S., difference in physico-chemical properties of various proteins in plant seeds. II. Four kinds of rice protein, A., 803.
- Taeschner Chemisch-Pharmazeutische Fabrik, E. See Plagwitz, P.
- Täufel, K., and Pankow, U., determination of alcohol in tinctures, B., 835.
- Täufel, K., and Wagner, C., determination of ammonia, B., 522.
- Täufel, K., Wagner, C., and Dünwald, H., decomposition of *p*-phenetylcarbamide when heated in aqueous solution, A., 485.
- Täufel, K., Wagner, C., and Preiss, W., hydrolysis of *o*-benzoic-sulphinide (saccharin) and of *o*-sulphonamidobenzoic acid, A., 1100.
- Tafel, V., and Witter, W., recovery of copper, lead, zinc, and silver from low-grade calcareous ores, (P.), B., 58.
- Taggart, W. T. See Day, A. R.
- Tagliani, G. See Leemann, H.
- Tailby, R. V., acid-resisting over-glaze colours, B., 570.
- Taillandier, M. See Leroy, D.
- Taimni, I. K., viscosity of supersaturated solutions. I., A., 578.
- Tainton, U. C., electrodeposition of zinc, (P.), B., 21.
- Taira, T., pinacolin transformation of a β -butylene glycol, A., 734.
- Takács, L., secretin. I and II. Hypoglycæmic action of secretin in animals, man, and in diabetes, A., 800.
- Takagi, S., electrodeposition of indium with dropping-mercury cathode, A., 377.
- Takagi, T. See Atsuki, K.
- Takahashi, G., mechanism of carbon penetration in cementation of iron and steel, B., 753.
 energising action of carbonates contained in carburising mixtures, B., 897.
 relation between the quantity and depth of carburisation [of iron], B., 929.
- Takahashi, H. See Kimura, K.

- Takahashi, M., detoxication process in the foetal organism, A., 1396.
 detoxication process in the foetal organism. II. Synthesis of ornithuric acid in the incubated hen's egg after injection of benzoic acid, A., 1396.
- Takahashi, T., degumming of silk. I. Action of alkali. II. Effect of formaldehyde in alkaline media, B., 184.
 natural silk. I. Iodine-absorbing power of silk fibroin, B., 562.
 degumming of silk. V. Influence of fatty acid, B., 562.
 degumming of silk. III. Action of hydrochloric acid on the sericin and effect of formaldehyde on the action. IV. Gelatinisation of the sericin, B., 667.
- Takahashi, T., and Sakaguchi, K., physiology of *Rhizopus* species, A., 928.
- Takahashi, Y., and Hukumoto, Y., continuous spectrum of hydrogen, A., 1066.
- Takahasi, K., relation between pressure and diameter of impression in hardness test, B., 756.
- Takahasi, K. See also Honda, K.
- Takahira, H., variations in metabolism during fast and on resumption of feeding, A., 1396.
 parallelism between creatinine excretion and basal metabolism, A., 1396.
- Takamine, J., Takamine, J., jun., and Takamine Ferment Co., method of laundering, (P.), B., 364.
- Takamine, J., jun. See Takamine, J.
- Takamine, T., and Suga, T., reversal of helium lines, A., 209, 565*.
- Takamine, T. See also Dieke, G. H.
- Takamine Ferment Co. See Takamine, J., and Wooyenaka, K.
- Takamiya, E., alkalimetric determination of amino-acids and peptides by the method of Willstätter and Waldschmidt-Leitz, A., 660.
- Takata, J. See Yamamura, Y.
- Takata, M., cetacea. XXXVI. Bile, A., 85.
- Takayama, Y., collection of inorganic potassium salt, betaine salt, and glutamic acid from the waste liquor produced in distilling alcohol from fermented beet molasses, (P.), B., 424, 766*.
 utilisation of the soya bean. II., B., 529.
- Takebe, T. See Imori, S.
- Takeda, T., cystine content of keratins, A., 1271.
- Takagami, S., potentiometric determination of copper as cupric ferrocyanide, A., 860.
- Takagami, S. See also Müller, Erich.
- Takei, S., rotenone, the active principle of the derris root, A., 765.
- Takei, T., equilibrium diagram of the zinc-antimony system, A., 242.
 equilibrium diagram of the molybdenum-carbon system, A., 1328.
- Takemura, K., cetacea. XXVII. Milk of different kinds of whales. XXXI. Synovial fluid, A., 84.
- Takeshima, M. See Hisamoto, J.
- Takeuchi, S., pancreatic hormone and mineral metabolism. I. Influence of the pancreatic hormone on the excretion of different urinary constituents (particularly inorganic salts) by normal and by pancreas-diabetic dogs, A., 1287.
- Takeuchi, T., light quantum theory, A., 1302.
- Takewaki, M. See Kimura, M.
- Talbot, G. A., Finkle, R., and Katsuki, D., ammonia in sweat, A., 914.
- Talbot, G. A. See also Haugen, C. O.
- Talbot, B., and Talbot Non-Corrosive Linings Co., coating [of pipes, etc.], (P.), B., 128*.
- Talbot, J. H., Fölling, A., Henderson, L. J., Dill, D. B., Edwards, H. T., and Berggren, R. E. L., muscular activity. V. Changes and adaptations in running, A., 1050.
- Talbot Non-Corrosive Linings Co. See Talbot, B.
- Talen, H. W., replaceability of the halogen atom in 1-chloro-2:4-dinitro- and -2:4:5-trinitro-naphthalenes, A., 405.
 replacement of the halogen atom or the alkoxy-group in 1-chloro-, 1-methoxy-, or 1-ethoxy-2:4-dinitro- and -2:4:5-trinitronaphthalenes by various other groups, A., 405.
 action of sulphur compounds on 1-chloro-2:4-dinitronaphthalene, 1-chloro-2:4:5-trinitronaphthalene, and 1-chloro-2:4-dinitrobenzene, A., 877.
- Talmud, D., hydrolytic adsorption and equilibrium displacement, A., 120.
- Talwalkar, T. W., and Parmelee, C. W., measurement of plasticity [of clays], B., 193.
- Tamamushi, B., equations of state of adsorbed phases. I. and II., A., 133, 945.
- Tamaru, K., properties of quenched steels, B., 930.
- Tamaru, K. See also Honda, K.
- Tamiya, H., metabolism of *Aspergillus oryzae*. II., A., 1063.
 cytochrome in fungi, A., 1063.
- Tamiya, H. See also Yaoi, H.
- Tammann, G., reciprocal action between dissolved gases and solvent on the basis of the dependence of gas solubility on temperature, A., 118.
 passivity limit in mixed crystals, A., 375.
 relation between the internal pressure of solutions and the nature of the dissolved substance, A., 1184.
- Tammann, G., and Boehov, K., comparison of thickness of oxide films determined by interference colours and by weighing, A., 358.
 action of acids on metals under pressure, A., 375.
 absorption of hydrogen under high pressure by rubber, and behaviour of rubber after release of pressure, B., 237.
- Tammann, G., and Botschwar, A. A., light figures of copper and iron, A., 1177.
- Tammann, G., and Ewig, K., iron carbide (Fe₃C), A., 7.
- Tammann, G., and Heinzel, A., orientation of the crystallites of rolled and drawn metals; crystallographic significance of the mechanism of slip during drawing, pressing, and rolling of metals, B., 487.
- Tammann, G., and Hinnüber, J., internal friction of mercury, A., 11.
- Tammann, G., and Jellinghaus, W., volume isobars of water up to the melting curve, A., 1315.
- Tammann, G., and Jenckel, E., influence of pressure on the potential of electrodes charged with hydrogen and on the current-potential curves, A., 958.
- Tammann, G., and Kröger, C., explosion temperature and sensitivity to shock of liquid and solid explosives, A., 373.
 supposed luminescence of liquids on adiabatic compression, A., 814.
- Tammann, G., and Loeblich, O., detection of baser admixtures in gold plates, B., 197.
- Tammann, G., and Oelsen, W., determination of the vapour pressure of scented substances, A., 828.
- Tammann, G., and Pillsbury, M. E., viscosity isotherms of binary mixtures, A., 698.
- Tammann, G., and Rabe, H., relationship between the viscosity of water and the pressure and that of solutions and the concentration, A., 122.
- Tammann, G., and Rienäcker, W., toxic effect of some metals and alloys on bacteria, A., 675.
- Tammann, G., and Sartorius, F., etching phenomena on copper single crystals, A., 1177.
- Tammann, G., and Schaerwächter, K., behaviour of iron with other elements, A., 35.
- Tammann, G., and Schneider, J., relationship between the velocity of adsorption of hydrogen by palladium, iron, and nickel, and the orientation of the crystals, A., 701.
 formation of surface films on palladium by heating in air and by anodic polarisation, A., 832.
- Tammann, G., and Schwarzkopf, E., influence of pressure on the temperature of maximum density of water and of solutions of varying concentration, A., 1184.
- Tammann, G., and Straumanis, M., change in structure and electrical resistance during cold-working of metals, A., 352.
 crystallographic orientation of electrolytically deposited metals [copper and nickel], A., 1174.
- Tammann, G., and Sworykin, A., reduction of alkali carbonates by carbon, and action of alkali metals on carbon, A., 140.
 dynamics of reduction of oxides by carbon, A., 485.
 separation of mixed crystals from solutions, A., 843.
- Tammann, G., and Veszi, G., chemical action of electrons of moderate velocity on temper films, A., 102.
 colour changes of double iodides when rubbed, A., 141.
- Tammann, G., and Wilson, C., change of the potential of metals, and of the colour and resistance of certain gold-silver-copper alloys, on cold rolling, A., 958.
 relationship between the velocity of deposition of radium-F and the condition of the precipitating metal, A., 963.
- Tamura, S. See Carpenter, H. C. H.
- Tanaka, C. See Sugimoto.
- Tanaka, C., action of superheated water on sugars. II., A., 275.
- Tanaka, C. See also Komatsu, S.

- Tanaka, K., recrystallisation of aluminium, A., 1175.
 Tanaka, M., micro-determination of nitrogen in soils, B., 27.
 Tanaka, S., effect of rolling on single crystals of aluminium, A., 8.
 Tanaka, S. See also Müller, Erich.
 Tanaka, Y., and Atsuki, K., cellulose acetate and its solutions. III. Stabiliser for cellulose acetate, B., 519.
 Tanaka, Y., and Kobayashi, R., phenols from natural petroleum, B., 148.
 Tanaka, Y., and Kuwata, T., binary azeotropic mixtures of ethyl alcohol with petroleum hydrocarbons, A., 117.
 lead tetraethyl, A., 401.
 binary azeotropic mixtures containing a lower alcohol as one component, A., 829.
 Tanaka, Y., and Nagai, Y., inflammability of hydrogen. VI. Influence of tin tetramethyl and lead tetramethyl on the limits of inflammability of hydrogen, A., 847.
 Tananaev, I., composition of the precipitate formed by the action of potassium ferrocyanide on calcium salts in presence of acetic acid, A., 853, 1341*.
 Tananaev, I. See also Tananaev, N. A.
 Tananaev, N. A., and Tananaev, I., compound of lead iodide with stannous iodide, A., 34.
 detection of chromium, manganese, mercury, silver, and copper by spot tests, A., 500.
 Tanasescu, I., synthesis of *o*-nitrocinnamic acid and its photochemical behaviour, A., 61.
 explanation of the mechanism of isomerisations and spontaneous reactions in organic chemistry with the aid of the theory of polar valencies, A., 177.
 tautomerism of *o*-nitrobenzaldehyde, A., 178.
 Tanberg, A. P., Kramer, R. L., and Du Pont de Nemours & Co., E. I., finely-divided nitroguanidine and its manufacture, (P.), B., 875.
 Tanchilevitch, A. M. See Botvinkin, O. K.
 Tancov, N. V., and Chodalevitch, T., condensation of vapours of certain substances at temperatures below their m. p., A., 12.
 Tancredi, G. See Carobbi, G.
 Tanescu, I., new type of acridone: *para*-acridones, A., 73.
 Tange, U., and McCollum, E. V., allophanates of certain sterols, A., 410.
 Tangl, A., and Recht, S., action of histamine on the cholesterol content of the blood of normal and splenectomised dogs, A., 1400.
 Tangl, H. See Farkas, G.
 Taniguchi, K., site of formation of bilirubin, A., 669.
 Tankard, A. R., use of Janus-green in the reductase test for milk, B., 425.
 Tankard, J. See Tootal Broadhurst Lee Co., Ltd.
 Tanner, H. G. See Gabriel, A.
 Tanner, W. L., and Grasselli Chemical Co., insecticide and method of applying same, (P.), B., 169.
 manufacture of arsenates of manganese, (P.), B., 403*.
 Tanret, G., salts of pelletierine, A., 1031.
 Tanret, G. See also Simonnet, H.
 Taplin, B. See Moulden, J. C.
 Taplin, T. J., leaching of [copper] ores, (P.), B., 757.
 Tapping, F. F. See Reynard, O., and Thornley, F. C.
 Tapsell, H. J., properties of materials at high temperatures. III. "Creep" of Armco iron, B., 408.
 fatigue-resisting properties of 0.17% carbon steel at different temperatures and at different mean tensile stresses, B., 408.
 Taquibao, H. See Wells, A. H.
 Tar & Petroleum Process Co. See Zwilling, B.
 Tarachovski, B. A., formaldehyde as tanning material, B., 795.
 Taranov, K. N., electrodialysis of soil, B., 869.
 Taranovitch, L. F., effect of mental fatigue on the excretion of organic phosphorus in the urine, A., 669.
 Tarasenkova, D., efflorescence of sodium sulphite, A., 354.
 f. p. of ethyl alcohol-water mixtures, A., 842.
 Tarasenkova, D. See also Rakovski, A. V.
 Tarbin, W. T., colour photography, (P.), B., 245.
 Tardan, J. J. See Consortium Electro-Chim. de France.
 Targonski, H., nitrogen metabolism of chicken embryos, A., 1396.
 Tarlé, M., sorption, A., 120.
 determination of the stability of smokeless powder, B., 588.
 Tarlton, E. S. See Godfrey, (Sir) G. C.
 Tarr, G. W., and Blaine Co., marine coating [paint] and the like, (P.), B., 275.
 Tarr, L. W., fruit jellies. III., B., 835.
 Tartar, H. V., and Schaffer, N. K., influence of acids and bases on the inhibitory effect of gelatin on the catalytic decomposition of hydrogen peroxide by colloidal platinum, A., 1337.
 Tartar, H. V., and Wellman, V. E., influence of movement of electrolyte on the steadiness of the potential of the oxygen electrode, A., 1097.
 Tartar, H. V. See also Colin, P. G.
 Tarugi, N., colour reactions of nitroprusside, A., 160.
 Tarulli, G., and Marcucci, A., mineral phosphates in the province of Lecce, A., 390.
 "Tasch" Laboratory, Ltd. See Laboratorium "Tasch" A.-G.
 Tashiro, S., hydrogenation of neutral oil of low-temperature tar, B., 776.
 Tashiro, S. See also Oshima, Y.
 Taslakowa, T., carbon- and oxidation-quotients of urine after dextrose administration, A., 1275.
 Tasman, A., velocity measurements on the opening of the lactone ring in derivatives of phthalide, A., 138.
 Tassilly, E., Belot, A., and Descombes, M., hydrolysis by alkalis of ethyl phenylethylmalonate, A., 290.
 hydrolysis of esters by solid alkali hydroxides, A., 1006.
 Tatarskaja, provision of hide powder [for tannin analyses], B., 828.
 Tattersfield, F., decomposition of naphthalene in soil and the effect on its insecticidal action, B., 537.
 Tattersfield, F., and Gimmingham, C. T., contact insecticides. V. Toxicity of amines and *N*-heterocyclic compounds to *Aphis rumicis*, L. VI. Insecticidal action of the fatty acids, their methyl esters, and sodium and ammonium salts, B., 28.
 Tatum, W. W. See British Dyestuffs Corp., Ltd.
 Tauber, C., (Leuchte Nachf., G.), coating and binding compositions, (P.), B., 719.
 Taubmann, A., determination of water in combustible materials by means of magnesium methyl iodide, B., 629.
 Taubmann, G., action of adrenaline on purine metabolism, A., 552.
 influence of insulin and synthalin on purine metabolism, A., 925.
 Taubmann, I. See Fromm, E.
 Tauböck, K., detection and physiology of urea in the higher plants, A., 558.
 Tauch, E. J., hydraulic lift for gas-analysis apparatus, B., 71.
 Taufer, J., Pavlak, V., and Bayer, M., preservation of feeding stuffs, (P.), B., 34.
 Tausson, W. O., oxidation of waxes by micro-organisms, A., 447.
 Tausz, J., prevention of the colouring [and gumming] of hydrocarbon oils, (P.), B., 807.
 Tausz, J., and Hornung, G., refraction in gases, A., 348.
 Tausz, J., and Jungmann, K., determination of carbon monoxide with iodine pentoxide, B., 13.
 Tausz, J., and Rumm, H., rapid determination of the water contents of solid and liquid fuels, B., 433.
 Taylor, A. E., Barton, H. W., and Jones, F. A., material for use in case-hardening metals, (P.), B., 821.
 Taylor, A. M., properties of non-metallic elements in relation to their cohesive forces, A., 111.
 polarisation of infra-red radiation by calcite, A., 934.
 Taylor, B. S., and Jones, W. N., effect of certain metallic salts on the ageing of a [rubber] "tread compound," B., 237.
 Taylor, B. S. See also Kelly, A.
 Taylor, C., bleaching [of fibres], (P.), B., 331.
 Taylor, C. See also Jackson & Brother, Ltd.
 Taylor, C. J. A. See Storer, T.
 Taylor, E. McK., base exchange and the formation of coal, A., 612; B., 509.
 replaceable bases in the roofs of bituminous coal seams of carboniferous age, B., 288.
 replaceable bases in roofs of lignite seams, B., 509.
 replaceable bases in roofs of anthracite seams, B., 509.
 replaceable bases in the roofs of bituminous coal seams of Cretaceous age, B., 590.
 replaceable bases in the roofs of bituminous coal seams of Tertiary age, B., 590.
 conditions and geological evidence of base exchange between the roofs of bituminous coal seams and solutions of sodium chloride, B., 590.
 Taylor, E. R., and Clarke, H. T., lower fatty acids of coconut oil, B., 23.
 Taylor, G. I., deformation of crystals of β -brass, A., 466.
 resistance to shear in metal crystals, A., 695.

- Taylor, H., hydrogen-ion concentration of blood corpuscles, A., 538.
- Taylor, H. A., and Davis, T. W., velocity of esterification of amides in alcohol, A., 1195.
- Taylor, H. B., determination of minute quantities of metals in biological material. I. Determination of lead in urine, A., 1152.
- Taylor, H. J., mechanism of chemical reactions, A., 970.
- Taylor, H. S., first report of the committee on photochemistry; Division of Chemistry and Chemical Technology, National Research Council, A., 600.
- quantum processes in photochemistry, A., 601.
- chemiluminescence; photochemistry and chemiluminescence; kinetics of chemiluminescence, A., 814.
- Taylor, H. S., and Du Pont de Nemours & Co., E. I., manufacture of hydrogen peroxide, (P.), B., 298.
- Taylor, H. S. See also Bates, J. R.
- Taylor, James, intensities of forbidden multiplets, A., 210.
- ionisation by collision, A., 214.
- explosion of liquid-air-cooled charcoal tubes, A., 266.
- disappearance of gases into glass under the action of the electric discharge, A., 560.
- condensable gas modifications formed under the influence of electrodeless discharges, A., 1103.
- Taylor, James, and Taylor, W., high-frequency electric discharge at low pressures, A., 681.
- Taylor, John. See Reilly, J.
- Taylor, J. B., and Phipps, T. E., magnetic moment of atomic iodine, A., 1301.
- Taylor, J. H. See Courtaulds, Ltd.
- Taylor, J. N., determination of high-boiling phenols in a coal-tar creosote-castor oil soap disinfectant, B., 550.
- Taylor, M. C., and Mathieson Alkali Works, Inc., hypochlorite composition, (P.), B., 157.
- Taylor, N. W., acid penetration into living tissues, A., 327.
- Taylor, R. See Morgan, G. T.
- Taylor, R. L., and Tonpet-Taylor Engineering Co., prepared fire-proof mortar, (P.), B., 125.
- Taylor, T. W. J., action of nitrous acid on amino-compounds. I. Methylamino and ammonia, A., 715.
- action of nitrous acid on amino-compounds. II. Aliphatic amino-acids, A., 993.
- Taylor, W., and Elliott, A., residual effect in the actinic absorption of chlorine, A., 345*.
- Taylor, W. See also Taylor, James.
- Taylor, W. C., and Corning Glass Works, glass composition, (P.), B., 92.
- Taylor, W. H., and Jackson, W. W., structure of cyanite, Al_2SiO_5 , A., 693.
- Taylor, W. H., and Shaw, C., purifying air or other gases, (P.), B., 879.
- Taylor, W. H., and West, J., crystal structure of the chondrodite series, A., 109.
- Taylor, W. W., water paints, wood finishes, etc., (P.), B., 531.
- Taylor-Wharton Iron & Steel Co., See Mekeel, V. C.
- Tchakirian, A., volumetric determination of germanic acid, A., 983.
- Tchakirian, A. See also Bardet, J.
- Tchayeff, S., manufacture of building slabs or panels, (P.), B., 525.
- Tcherniac, J., thiocyanacetone and derivatives, A., 530.
- manufacture of *o*-anisidine and *o*-aminophenol ethers, (P.), B., 152.
- Tchétherov, E., combined method of determining soluble and insoluble volatile fatty acids in butter and fats, B., 577.
- Tching-Datschong, See Noir, C.
- Teague, M. C., and American Rubber Co., colouring of aqueous dispersions of rubber, (P.), B., 277.
- manufacture of rubber articles, (P.), B., 616.
- Teakle, L. J. H., phosphate in the soil solution as affected by reaction and cation concentrations, B., 342.
- Teale, W., and McLauthlin, H. F., hydrocarbon oil burner, (P.), B., 920.
- Technicolor Motion Picture Corporation, preparation of coloured reproductions by imbibition, (P.), B., 731.
- production of hardened gelatin impression-receiving surfaces [films], more especially for imbibition printing, (P.), B., 731.
- Technische Chemikalien Co., G.m.b.H. See Fessel, G.
- Techno-Chemical Laboratories, Ltd. See Soderlund, O., and Testrup, N.
- Tede, Bemberg [cuprammonium] silk, B., 519.
- Teeter, C. E., jun. See Richards, T. W.
- Tei, L. J. See Bone, W. A.
- Tei, S., and Komatsu, S., catalytic action. XX. Catalytic chlorination. I., A., 279.
- Teichmann, H., measurement of low pressures, A., 1348.
- Teik, G. L. See Bishop, R. O., and Greenstreet, W. R.
- Teitelbaum, M. See Berg, R.
- Telefunken Gesellschaft für drahtlose Telegraphie m.b.H., and Bronk, O., photo-electric cell, (P.), B., 129.
- Telefunken Gesellschaft für drahtlose Telegraphie m.b.H., and Karolus, A., photo-electric cell, (P.), B., 98.
- Teletov, J. S., and Andronikov, N. N., basicity of nitrophenoxymalonio acids, A., 998.
- Teller, S. V., mineral metabolism in coeliac disease, A., 1394.
- Tendeloo, H. J. C., determination of particle size in sols, A., 474.
- Tener, R. F., Kingsbury, S. S., and Holt, W. L., tensile properties of soft rubber compounds at temperatures ranging from -70° to $+147^\circ$, B., 649.
- Tengler, J., production of a binding material for colours, varnishes, and cements, (P.), B., 376, 826*.
- Tenney, F. G. See Waksman, S. A.
- Teppema, J. See also Goodyear Tire & Rubber Co., and Sebrell, L. B.
- Terada, M., preparation of creatinine from urine, A., 542.
- Terada, T., and Yumoto, K., irregular mode of spherical propagation of flame, A., 715.
- Terada, Y., effect of thyroid substance, adrenaline, and insulin on the lactacidogen content of muscle and the phosphoric acid of organs, A., 331.
- Teraoka, N., fish bile. II. *Tetrodon porphyreus*, Sieb., A., 1272.
- Terashima, S., effect of atropine on alimentary hyperglycaemia, A., 794.
- Terenin, A. See Butkov, K., Dobrezov, L., and Pringsheim, P.
- Terentiev, A. P., reactions of activated magnesium, A., 494.
- Terentiev, A. P., and Rubinstein, A., reactions of activated magnesium, A., 880.
- Tergina, J. See Bodnár, J.
- Terlikowski, F., potentiometric p_H determinations in soil, B., 27.
- Terlikowski, F., and Kurylowicz, B., influence of neutral salts and fertilisers on soil reaction, B., 537.
- Terlikowski, F., Michniewski, S., and Kwinichidze, M., determination of the phosphate requirement of soils, B., 168.
- Terlikowski, F., and Wlozczewski, T., titration curves and buffer actions of soils, B., 582.
- Terlinck, E., manufacture of sulphur monochloride, B., 89.
- preparation of acetic acid and its derivatives, B., 514.
- Terpstra, P., strongly birefringent crystal species, A., 1314.
- Terranova, G. See Minunni, G.
- Terres, E., and Biederbeck, H., specific heats of amorphous carbon and semi-cokes, B., 392.
- Terres, E., and Heinsen, A., Burkheiser ammonium sulphite-bisulphite process. II., B., 156.
- Terres, E., and Meier, M., heat of coking of gas coals and coking coals. II., B., 508.
- Terres, E., and Overdiek, F., Walthor Feld [ammonium] polythionate process [for coal gas], B., 323.
- Terres, E. See also Stettiner Chamotte-Fabr. A.-G., and Stettiner Chamotte-Fabr.-A.-G. vorm. Didier.
- Terrey, H., structure of the platinyanides; potential of the platino-platinicyanide electrode, A., 246.
- Terroine, E. F., and Belin, P., influence of feeding on the quantitative composition of hens' eggs, A., 194.
- Terroine, E. F., and Bonnet, R., comparative sensitiveness of the active and inactive forms of enzymes to ultra-violet rays and to heat, A., 202.
- utilisation by the organism of energy liberated by oxidation processes and the food value of alcohol, A., 1049.
- Terroux, F. R., effect of rhodamine on a line spectrum, A., 219.
- Terry, (Miss) E. M., catalytic activity of hydrochloric acid and of potassium and sodium hydroxides in aqueous solution, A., 718.
- Terry, (Miss) E. M. See also Wilson, S. D.
- Tertsch, H., space-filling forms in crystal lattices, A., 1080.
- Terziev, G. N. See Sundstrom, C.
- Tesche, H., Job, A., and Grasselli Dyestuff Corporation, anthraquinone-nitrosoamine compound, (P.), B., 740*.
- Tesche, H. See also I. G. Farbenind. A.-G.
- Tessier, C. O. See Stay, T. D.
- Testi, G., and Inardi, G., study of bituminous rocks, A., 42.

- Testoni, G., volumetric determination of sulphuric acid, A., 1345.
adsorption phenomena [with wheat], B., 500.
- Testrup, N., Soderlund, O., Gram, T., and Techno-Chemical Laboratories, Ltd., utilisation of subdivided coal, (P.), B., 290.
- Tetens, O., production of unsintered binding means [hydraulic cement] from oil shale and limestone, (P.), B., 448.
- Tetens, O., and Record Cement-Ind. G.m.b.H., distilling oil shale and providing a raw material for manufacture of hydraulic cement, (P.), B., 739.
- Tethi, A., independence of the displacement of the absorption bands, and changes of absorption in hæmatoporphyrin solutions; cause of the variability of the spectrum of acid hæmatoporphyrin with concentration of acid, A., 315.
- Tetrode, H., impulse-energy-jump in Dirac's quantum theory of electrons, A., 933.
general relativity quantum theory of the electron, A., 1070.
- Tett, H. C. See Gill, F.
- Teuffert, W. See Braun, J. von.
- Teves, M. C., widening of absorption bands with pressure, A., 572.
- Tewari, J. D., and Dutt, S., dyes derived from quinoline-2:3:4-tricarboxylic acid, A., 528.
- Texas Co. See Behimer, O., Dearborn, R. J., De Florey, L., Hall, F. W., Neller, J. R., Scanlin, J. R., Schoonmaker, J. M., jun., and Wolcott, E. R.
- Texas Gulf Sulphur Co. See Kobbé, W. H., and Schwab, J. W.
- Texas Pacific Coal & Oil Co. See Beattie, R.
- Tha, P. See Peacock, D. H.
- Thame, J., effecting [continuous] sublimation of volatilisable substances, (P.), B., 553.
- Thannhauser, S. J. See Enderlen, E.
- Tharaldsen, F., manufacture of liquid zinc from blue powder, (P.), B., 58.
- Thatcher, C. J., purification of carbazole, (P.), B., 634.
- Thauss, A., Mauthe, G., Günther, A., and Grasselli Dyestuff Corporation, manufacture of sulphonic derivatives of aralkylated unsaturated fatty acids, (P.), B., 740*.
- Thauss, A. See also I. G. Farbenind. A.-G.
- Thayer, J. R., and McElvain, S. M., piperidine derivatives. V. Preparation and reduction of phenyl-substituted 3-carbethoxy-4-piperidones; 1-cyclohexyl- and 1-phenylethyl-3-carbethoxy-4-piperidyl *p*-aminobenzoates, A., 72.
- Thayer, R., centrifugal amalgamator, (P.), B., 529.
- Thayer, S., Jordan, C. N., and Doisy, E. A., extraction of ovarian hormone. II., A., 1288.
- Thaysen, A. C., Galloway, L. D., and Bakes, W. E., production of alcohol and acetone from vegetable matter, (P.), B., 686.
- Theil, A. See Fluck, R. C.
- Theis, E. R., lipin distribution in normal and abnormal liver. I. Ox liver, A., 319.
lipin distribution in normal and abnormal liver. II. Effect of insulin on lipins of rabbit liver, A., 676.
further characteristics of animal skin fat, B., 167.
- Theis, E. R., and McMillen, E. L., biochemistry of soaking. I. Changes occurring within the skin, B., 534.
biochemistry of soaking. II. Effect of time, temperature, and hide proportion on soak waters, B., 827.
- Thiess, H. W., and Superior Sheet Steel Co., furnace [for heat-treating galvanised sheets], (P.), B., 527.
- Thelen, K. See Rhenania-Kunheim Verein Chem. Fabr. A.-G.
- Thenoz, R. A. J. See Ruth-Aldo Co., Inc.
- Thépénier, A. See Nepveux, F.
- Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd. See Morgan, J. S., and Rider, D.
- Thermo-Electric Battery Co. See Hermann, O.
- Theumann, M. J. See Société Chimique des Usines du Rhône.
- Thibaud, J., grating spectrograph for X-rays of long wave-length, A., 108.
discontinuities of absorption in the intermediate region (K-bands of carbon, nitrogen, and oxygen), A., 211.
soft X-ray emission and absorption spectra with tangential grating, A., 340.
diffraction of X-rays by means of line gratings; spectrography of the intermediate region, A., 691.
index of refraction of glass for X-rays of long wave-length, A., 939.
vacuum grating spectrograph for ultra-violet and soft X-rays, A., 1173.
- Thibaud, J., and Soltan, A., spectrographic researches in the intermediate region, A., 339.
- Thiel, A., Landolt reaction, A., 495.
- Thiel, A., and Diehl, R., indicators. XI. Phenolphthalein and derivatives, A., 639.
- Thiel, A., and Eckell, J., corrosion phenomena. XII. Apparent contradiction between the catalytic influence of silver on the dissolution of zinc in acids and its position in the overvoltage series, A., 376.
- Thiel, A., and Luckmann, H., indium. III., A., 852.
- Thiel, A., and Peter, O., indicators. XII. Azo-indicators, A., 977.
- Thiele, A. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Thiele, A. C. See Smith, C. F.
- Thiele, Hans. See Lindemann, H.
- Thiele, Heinrich, iron and manganese in water, B., 428.
- Thiele, Heinrich. See also Haase, L. W., and Kautsky, H.
- Thielepape, E., and Meier, P., correct procedure in sulphitation of thin [sugar] juice. I. Sulphitation, B., 498.
evolution of carbon dioxide in the boiling of thin [beet] juices. I., B., 831.
- Thiene, H., Prausnitz, P. H., Schott, G., and Jenaer Glaswerk Schott & Gen, flask for laboratory purposes, (P.), B., 249.
- Thiers, H. P. See Gautier, C.
- Thies, F., [machine for elastic] mercerisation of fabrics, (P.), B., 601.
- Thies, O. J., jun. See Arbuckle, H. B.
- Thiess, K., Deicke, B., Schmidlin, R., and Grasselli Dyestuff Corporation, polyarylamine dyo and its manufacture, (P.), B., 924.
- Thiess, K. See also Herz, R., and Siebert, O.
- Thilo, E., physical methods in chemical laboratories. VIII. Electrical methods of titration, A., 1203.
- Thilo, E. See also Pringsheim, H.
- Thilo, F., Röntgenographic examination and entropic relations of alkaline-earth fluorides, A., 693.
- Thimann, K. V. See Schryver, S. B.
- Thimann, M. See Tiede, E.
- Thivolle, L. See Fontès, G.
- Thölcke, A. F. See Hahn, F. V. von.
- Thole, F. B., Birch, S. F., and Norris, W. S. G. P., refining of petroleum products, (P.), B., 438.
- Thom, C. See May, O. E.
- Thomas, A. J., and Stow, A. A., thermostats, (P.), B., 553.
- Thomas, A. W., and Kelly, M. W., fixation of aluminium by hide substance, B., 581.
fixation of iron by hide substance, B., 581.
- Thomas, A. W., and Murray, H. A., jun., physico-chemical study of gum arabic, A., 706.
- Thomas, B. G. H. See Sayers, R. R.
- Thomas, C. A., spot plate for outside indications, A., 501.
- Thomas, C. A., and Hochwalt, C. A., effect of alkali-metal compounds on combustion, B., 556.
- Thomas, D. C. See Kremers, H. C.
- Thomas, F. See Dunlop Rubber Co., Ltd.
- Thomas, H. See Pew, A. E., jun.
- Thomas, H. H., influence of various factors on the products of the carbonisation of coal, B., 288.
effect on the gas-making value of gas oil of its previous use for removal of naphthalene from coal gas, B., 468.
- Thomas, J., Davies, A. H., and Scottish Dyes, Ltd., production of α -aminoanthraquinones, (P.), B., 183*.
- Thomas, J., and Scottish Dyes, Ltd., production of anthraquinone-sulphonic acids, (P.), B., 516*.
- Thomas, J. See also Anderson, I. B., Beckett, E. G., Drescher, H. A. E., Harris, J. E. G., Hereward, H. W., Hooley, L. J., Smith, William, Thomson, R. F., White, G. N., Wilson, J. S., and Wylam, B.
- Thomas, J. E., convulsant action of acid and neutral salts of acid fuchsin, A., 794.
- Thomas, J. S. See Corson, B. B.
- Thomas, L. See Goldschmidt, H.
- Thomas, Max, determination of the durability of glass by the powder method, B., 928.
- Thomas, Max, and Patent-Treuhand Ges. f. Elektr. Glühlampen m.b.H., production of glass, (P.), B., 817*.
- Thomas, Max. See also Gehlhoff, G.
- Thomas, Meirion. See Blackburn, K. B.
- Thomas, M. D., replaceable bases in some soils from arid and humid regions, B., 536.
aqueous vapour pressure of soils. III. Soil structure as influenced by mechanical treatments and soluble salts, B., 538.

- Thomas, M. D., replaceable bases and dispersion of soil in mechanical analysis, B., 618.
aqueous vapour pressure of soils. IV. Influence of replaceable bases, B., 618.
- Thomas, M. D., and Cross, R. J., automatic apparatus for determination of small concentrations of sulphur dioxide in air, A., 802.
- Thomas, M. D., and Jennings, D. S., action of alkali; soil moisture, B., 764.
- Thomas, P., and Maffei, E., occurrence of acetaldehyde in cerebrospinal fluid, A., 195.
nature of the hydrocarbon group of thymonucleic acid, A., 273.
determination of acetaldehyde in cerebrospinal fluid, A., 542.
- Thomas, R. See Lever Bros., Ltd.
- Thomas, R. E. See Wheeler, A. S.
- Thomas, T. P., and Westinghouse Lamp Co., preparation of an electron-emitting material, (P.), B., 272.
activation of electron-emission material, (P.), B., 612.
- Thomas, T. P. See also Marden, J. W.
- Thomas, W., nitrogen metabolism of *Pyrus malus*, L. I. Influence of temperature of desiccation on water-soluble nitrogenous constituents and separation of water-soluble protein from non-protein constituents. II. Distribution of nitrogen in the insoluble cytoplasmic proteins, A., 1060.
nitrogen metabolism of *Pyrus malus*, L. III. Partition of nitrogen in the leaves and one and two year branch growth and non-bearing spurs throughout a year's cycle, A., 1163.
nitrogen metabolism of *Pyrus malus*, L. IV. Effect of sodium nitrate applications on the total nitrogen and its partition products in the leaves, new and one-year branch growth, A., 1407.
- Thomas, W. A., Schlegel, K. W., and Andrews, E., urinary proteins not originating in blood, A., 544.
- Thomas, W. E., preparing spinach and the like for canning, (P.), B., 943.
- Thomassen, L., preparation and structure of palladium mono- and di-antimonide, A., 1085.
- Thompson, H. W. See Hinshelwood, C. N.
- Thompson, J. See Wright, A. M.
- Thompson, J. A., [production of cellular] concrete, (P.), B., 485.
- Thompson, J. G. See Vanick, J. S.
- Thompson, J. H., cress grown in adrenaline, A., 1163.
- Thompson, M. de K., equilibrium of the system-barium carbide, barium oxide, carbon, and carbon monoxide, A., 1191.
- Thompson, M. de K., and Armstrong, W. G., vapour pressure of barium oxide, A., 1179.
- Thompson, M. de K., Cosgrove, Sarros, Hauelsen, and Dinan, duriron as an insoluble anode for gold cyanide solutions, B., 611.
- Thompson, M. S. See Bishop, O. M.
- Thompson, P. K. See Thompson, W. O.
- Thompson, R. A. See Kipping, F. S.
- Thompson, T. G., standardisation of silver nitrate solutions used in chemical studies of sea-waters, A., 496.
- Thompson, T. G., Lang, J. W., and Anderson, L., sulphate:chloride ratio of the waters of the North Pacific, A., 611.
- Thompson, T. G., Lorah, J. R., and Rigg, G. B., acidity of the waters of some Puget Sound bogs, A., 148.
- Thompson, T. G., and Miller, A. C., apparatus for micro-determination of dissolved oxygen [in water], B., 656.
- Thompson, T. G. See also Lorah, J. R.
- Thompson, W. O., Thompson, P. K., and Dailey, M. E., effect of posture on the composition and volume of blood in man, A., 437.
- Thompson (Dudley), Ltd., J., and West, R. D., removal of dust, sand, soot, and other foreign bodies from dust-laden air, flue gases, etc., (P.), B., 75.
- Thoms, H., and Heynen, F. A., stability of phenol ethers at an ethylene bridge, A., 285.
- Thomson, E., cohenite from Ovivak, Greenland, A., 864.
- Thomson, G. M., and Pennsylvania Gypsum Co., mixing quick-setting cementitious materials, (P.), B., 334.
production of cellular building materials, (P.), B., 335.
- Thomson, G. P., diffraction of cathode rays. I. and II., A., 3, 938.
scattering of canal rays in hydrogen, A., 342.
disintegration of radium-E from the point of view of wave mechanics, A., 455.
- Thomson, I. See Crooke, A.
- Thomson, J., ultra-violet radiations emitted by point discharges, A., 1067.
- Thomson, (Sir) J. J., electrodeless discharge through gases A., 3, 682.
waves associated with moving electrons, A., 216.
- Thomson, J. L. See Kemp, C. N.
- Thomson, J. R. See Abbott, T. W.
- Thomson, N. W., and Du Pont de Nemours & Co., E. I., method of condensation [of acetone], (P.), B., 183.
- Thomson, R. F., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing [vat dye of the dibenzanthrone series], (P.), B., 9.
manufacture of dyes and intermediates [dibenzanthronyls], (P.), B., 9.
manufacture of [vat] dyes [of the dibenzanthrone series], (P.), B., 328.
vat dye preparation and utilisation, (P.), B., 517.
- Thomson, R. F. See also Anderson, I. B.
- Thomson, R. H. See United Water Softeners, Ltd.
- Thomson, R. M. See Drinker, P.
- Thomson, R. T., behaviour of indicators in certain titrations, A., 857.
- Thomson, T., and Nisbet, N., extraction of dust from gas, (P.), B., 879.
- Thomson, W. T. See Desborough, A. P. H., and Smith, F. E.
- Thon, N., influence of electrolytes on the velocity of cataphoresis, and relation between the electrokinetic and electromotive potential, of gold, A., 953.
- Thordarson, W., emulsifier, (P.), B., 801.
- Thordarson, W. See also Curtin, L. P.
- Thorel, determination of nitrogen in fertilisers, B., 684.
- Thoresby, F. See Dann, C. B.
- Thorn, F. See Krollpfeiffer, F.
- Thorn, I. See "Silur" Techn. & Chem. Prod. Ges.m.b.H.
- Thorne, P. C. L., Kennedy, A. R., and Holloway, A. H., effect of ammonia on the flocculation of sols by electrolytes, A., 475.
- Thornley, B., gelatin. X. Effect of previous treatment with acid and alkali on the diamino-nitrogen fraction of the hydrolysis products of gelatin, A., 81.
- Thornley, F. C., Tapping, F. F., Reynard, O., and Thornley & Co., production of stable aqueous emulsions of pitch and other saponified organic matter of mineral origin, (P.), B., 116*.
- Thornley, S., and British Dyestuffs Corp., Ltd., manufacture of acylaminoflavanthrones, (P.), B., 294*.
- Thornley, S. See also British Dyestuffs Corporation, Ltd.
- Thornley & Co. See Thornley, F. C.
- Thornton, G. G. See Dunlop Rubber Co., Ltd.
- Thornton, H. G. See Gray, P. H. H.
- Thornton, J. E., two-colour kinematograph films, (P.), B., 316.
film material for the production of multi-colour transparencies, (P.), B., 317.
manufacture of multi-colour kinematograph films, (P.), B., 317.
- Thornton, W. M., apparatus for detecting the presence of inflammable gas, (P.), B., 900.
- Thorp, B. H. See David, W. T.
- Thorpe, J. F. See Farmer, E. H., and Ingold, C. K.
- Thorpe, W. V., vasodilator constituents of tissue extracts; isolation of histamine from muscle, A., 318.
- Thorsson, H. T. See Palm, E. C.
- Thorvaldson, T., Vigfusson, V. A., and Larmour, R. K., action of sulphates on the components of Portland cement, B., 484.
- Threadgold, T. D., X-ray investigation of woollen samples, B., 635.
- Threlfall, (Sir) R. See King, G.
- Thürmer, A., quantitative separation of arsenic, antimony, and tin, A., 498.
- Thunberg, T., soluble dehydrogenases, A., 550.
- Thurm, A. See I. G. Farbenind. A.-G.
- Thurston, L. M., and Petersen, W. E., lipins and sterols as sources of error in the determination of fat in buttermilk by ether extraction methods, B., 942.
- Tice, M. E., and Dutchess Bleachery, Inc., [vat] dyeing process, (P.), B., 86.
- Tichomirov, A. M. See Efremov, N. N.
- Tichov, G., additivity of photographic densities, A., 720.
- Tiede, E., Thimann, M., and Senses, K., phosphorescent aluminium nitride activated by silicon, A., 971.
- Tielkemeyer, H., furnace, (P.), B., 71.
- Tiere, L., and Ricca, V., electrical resistance of bismuth solidified in a magnetic field, A., 466.
- Tietig, C., and Andriessen, A., thermionic valve, (P.), B., 760.
- Tietz, H. See Sabalitschka, T.
- Tietze, W. See Asada, T.
- Tiffeneau, M., [preparation of] perbenzoic acid, A., 636.

- Tiffeneau, M., and Lévy, (Mlle.) J., comparative migratory tendencies of acyclic radicals in the semi-pinacolic transpositions of phenyldialkylglycols; their relation to affinity capacities, A., 286.
- Tift, T. de C. See Herthel, E. C.
- Tigerschild, M., thermodynamics of iron oxides, A., 843.
- Tikkanen, E., determination of essential oils in drugs by Stamm's method, B., 691.
- Tilitschev, M. D., and Dumski, A. I., action of sulphuric acid on aromatic hydrocarbons in connexion with their detection in petroleum, B., 630.
- Tilitschev, M. D. See also Sachanov, A.
- Tilley, F. W. See Schaeffer, J. M.
- Tilley, G. S., manufacture of aluminium chloride, (P.), B., 366. separation of alumina from alum, (P.), B., 893.
- Tilley, G. S., Millar, R. W., and Ralston, O. C., acid processes for the extraction of alumina, B., 87.
- Tillmans, J., and Hirsch, Paul, behaviour of proteins with alkali with some conclusions in regard to their structure, A., 436.
- Tillmans, J., Hirsch, Paul, and Grohmann, H., physico-chemical processes involved in the removal of manganese from drinking water. II. The adsorptive activity of manganese dioxide and the dependence of the amount of adsorption on the nature of the dioxide. III. Conversion of the adsorbed bivalent manganese into manganese dioxide, B., 550.
- Tillmans, J., Hirsch, Paul, and Stoppel, F., determination of tryptophan and tyrosine in proteins: application to the most important food-proteins, A., 1278.
- Tillmans, J., Hirsch, Paul, and Strache, F., products of hydrolysis of proteins, A., 1387.
- Tillmetz, F. P. See Frankfurter Gas-Ges.
- Tiltman, A. H., and Porritt, B. D., effect of heat on cotton, B., 741.
- Tilton, L. W., Finn, A. N., and Tool, A. Q., causes and removal of certain heterogeneities in glass, B., 483. effects of carefully annealing optical glass, B., 569.
- Timm, [detection of chronic lead poisoning], A., 1399.
- Timmel, H., action of mixed reagents on the viscosity of protoplasm, A., 1061.
- Timmermans, J., and Martin, F., international Bureau of Physico-Chemical Standards. III. Physical constants of 20 organic compounds, A., 942.
- Timmis, G. M. See Wellcome Foundation, Ltd.
- Timofeeva, A. M. See Steppuhn, O.
- Timon-David, J., chemical constitution and metabolism of fats in insects, A., 1047.
- Timon-David, J. See also Kollmann, M.
- Tincker, M. A. H., effect of length of day on the growth and chemical composition of the tissues of certain economic plants, A., 559.
- Tindall, J. B. See Nelson, R. E.
- Tingwaldt, C. See Henning, F.
- Tinker, J. M. See Gubelmann, I.
- Tischenko, D., halogenation of aromatic compounds in aqueous solutions, A., 626.
- Titan Co. A/S., treatment of titaniferous material, (P.), B., 90. dissolution of titaniferous materials in acids, (P.), B., 157. manufacture of titanium compounds, (P.), B., 231, 483. reduction of solutions containing titanium, iron, and eventually other compounds, (P.), B., 261. utilisation of titanium materials containing iron, (P.), B., 333.
- Titanium Alloy Manufacturing Co., and Kinzie, C. J., methods of obtaining zirconium compounds, (P.), B., 858*.
- Titanium Alloy Manufacturing Co. See also Kinzie, C. J.
- Titanium Pigment Co., Inc., manufacture of composite titanium pigments, (P.), B., 131.
- Titanium Pigment Co., Inc. See also Barton, L. E.
- Titely, A. F., conditions of formation of rings attached to the *o*-, *m*-, and *p*-positions of the benzene nucleus. III., A., 1241.
- Titov, A. M., relation between the spectral lines of hydrogen and of ionised helium, and the movements of the electrons, A., 449.
- Titov, E. See Abels, G.
- Titov, N. See Stadnikov, G.
- Titsch, H. See Suida, H.
- Titterton, F. See Brinjes & Goodwin, Ltd.
- Titus, H. W., modifications of Katayama's formulæ for computing the faecal nitrogen and faecal organic matter in chicken excrement, A., 1273.
- Titus, R. W., Sommer, H. H., and Hart, E. B., nature of the protein surrounding fat globules of milk, A., 319.
- Tiutiunnikov, B., origin and constitution of naphthenic acids, B., 114.
- Tobacco By-Products & Chemical Corporation. See Cox, E.
- Tobey, E. R. See Gowen, J. W.
- Tocher, J. F., variations in the proportion of solids-not-fat in milk, B., 137.
- Toda, S., production of viscose silk fabrics, (P.), B., 444.
- Todd, E. W., tests for methyl alcohol, A., 1113.
- Todd Co., Inc. See Orndorff, W. R.
- Tödt, F. See Spengler, O.
- Toeldte, W. See Wolff, Hans.
- Toennissen, E., effect of insulin on the decomposition of pyruvic acid in mammalian muscle, A., 205.
- Toepffer, H. See Freudenberg, K.
- Togino, S. See Majima, M.
- Toivonen, N. J., dicyclopentanone derivatives, A., 290.
- Tokmanov, V., determination of ceresin in ozokerite [mineral wax] and paraffin goudron, B., 592.
- Tokmanov, V. See also Tytschinin, B.
- Tokody, L., binary system manganous orthosilicate-calcium orthosilicate, A., 366.
- Tolch, N. A. See Perrott, G. St. J.
- Tolksdorf, S., natural vibrations in the infra-red of beryllium oxide, magnesium oxide, calcium oxide, and zinc oxide, A., 565.
- Tołkoczko, S., photochemical changes of hydrocarbons, A., 255.
- Tolman, R. C., second law of thermodynamics in general relativity, A., 1327.
- Tolman, R. C., De Baufre, W. L., Davis, J. W., Roberts, M. H., and Allen, S. G., liquefaction apparatus, (P.), B., 659.
- Tomaschek, (Frau) H. See Tomaschek, R.
- Tomaschek, R., and Tomaschek, (Frau) H., emission of phosphors. II. Transformation of constituent bands in the samarium sulphide spectrum, A., 219.
- Tomasik, Z., 1-*o*-chlorophenyl-3-methyl-5-pyrazolone and its derivatives, A., 1141.
- Tomasik, Z. See also Musierowski, A.
- Tómasson, H., potassium content of the blood of normal men; Kramer-Tisdall method for the determination of potassium, A., 912.
- Tomeo, M., synthesis of camphor; concentration of isobornyl acetate, B., 912.
- Tomiček, O., determination of selenium and tellurium by means of titanous chloride, A., 36. reaction of tellurium, A., 36.
- Tomihisa, R., viscose. XVI. Spinning. VI. Maturing of alkal-cellulose and its effect on spinning and on the properties of the threads, B., 743.
- Tomihisa, R. See also Kita, G.
- Tomita, E., decomposition of calcium cyanamide. II. Action of Japanese acid earth on calcium cyanamide solution, A., 252.
- Tomita, M., and Fukagawa, T., hydroxyamino-compounds which show the biuret reaction. IV. Anhydride formation of γ -amino- β -hydroxybutyric acid, A., 1363.
- Tomitch, J., series of lavas of Southern Serbia, A., 987.
- Tomkeieff, S. J., weathering of Cheviot granite under the peat, A., 503.
- Tomlinson, G. A., molecular cohesion, A., 1316.
- Tomlinson, G. H., cooking of sulphite pulp, (P.), B., 259.
- Tomlinson, K. C., dust and moisture control [in gas mains], B., 630.
- Tomlinsons (Rochdale), Ltd., and Smith, E. W., method and means for drying rubber or articles containing rubber, (P.), B., 24.
- Tomoda, Y., production of glycerol by fermentation. IV. Dissociation of acetaldehyde-sodium hydrogen sulphite complex in alkaline solution, A., 365. production of glycerol by fermentation. V. Effects of sulphites on the yeast cell and on fermentation, A., 923.
- Toms, F. W., and Money, C. P., separation of lead tetraethyl from solution in petroleum spirit, B., 559.
- Toms, H., oil bromide films and their use in determining the halogen absorption of oils, B., 236.
- Tomson, A., apparatus for purifying or cooling gases by treatment with a liquid, (P.), B., 249.
- Tomula, E. S., volumetric determination of perchlorate ion and of potassium in the presence of sulphates and phosphates, A., 263.
- Tonegutti, M., determination of oxalates in nitroglycerin powders, B., 109.

- Tongberg, C. O. See Conant, J. B.
- Tonime, M. T. See Shaternikov, M. N.
- Toniolo, C., rapid evaporation to dryness of ammonium nitrate solutions, (P.), B., 298*.
- Tonks, L., thermionic emission, A., 1068.
- Tonnet, J. See Loeper, M.
- Tool, A. Q. See Tilton, L. W.
- Tootal Broadhurst Lee Co., Ltd., Foulds, R. P., Marsh, J. T., and Wood, F. C., production of cellulosic fabric, (P.), B., 636.
- Tootal Broadhurst Lee Co., Ltd., Foulds, R. P., Marsh, J. T., Wood, F. C., Boffey, H., and Tankard, J., treatment of textile materials, (P.), B., 636.
- Tooth, L. F., compositions for heat-insulating and heat-resisting purposes, (P.), B., 368.
- Topham, C. F., and Courtaulds, Ltd., manufacture of artificial threads, etc., (P.), B., 521*.
- Topham, C. F. See also Courtaulds, Ltd., and Glover, W. H.
- Topley, B., and Hume, J., kinetics of the decomposition of calcium carbonate hexahydrate, A., 1100.
- Topley, B., and Whytlaw-Gray, R., rate of evaporation of small spheres as a method of determining diffusion coefficients; diffusion coefficient of iodine, A., 117.
- Topley, B. See also Clark, C. H. D.
- Toquet, L. See Marquoyrol, M.
- Torinus, G. See Brass, K.
- Tormin, R., apparatus for carbonising fuels, particularly coal, (P.), B., 251.
- Torrance, J. R., and Torrance & Sons, Ltd., plant for manufacture of paints, enamels, inks, etc., (P.), B., 24.
- mills for reducing paints, colours, and pigments, (P.), B., 615.
- Torrance & Sons, Ltd. See Torrance, J. R.
- Toshchchevikova, A. G. See Blagoveshchenski, A. V.
- Toshniwal, G. R., arc spectrum of bismuth, A., 2.
- Toshniwal, G. R. See also Majumdar, K., and Saha, M. N.
- Tóth, A., ultrafiltration of small amounts of liquid by means of the centrifuge, A., 208.
- Tottingham, W. E., and Kerr, H. W., climatic effects in the metabolism of maize, B., 136.
- Tottingham, W. E., and Lowsma, H., effect of light on nitrate assimilation in wheat, A., 1290.
- Tottingham, W. E., Rankin, E. J., Dickson, A. D., and Louwsme, H. W., temperature effects in the metabolism of wheat, B., 135.
- Tottingham, W. E. See also Appleman, C. O.
- Totzek, F., construction of gas and coke ovens, (P.), B., 778.
- Toulouse, J. H. See Levine, M.
- Toupet-Taylor Engineering Co. See Taylor, R. L.
- Tournaire, analysis of duralumin and other light alloys, B., 268.
- Tourtellotte, D. See Hart, M. C.
- Tower Manufacturing Co., Inc. See Miller, A., and Shafer, L. M.
- Town, B. W., isolation of pure *l*-proline, A., 1148.
- Townend, D. T. A. See Bone, W. A.
- Townend, E. H. See Royle, Ltd.
- Townsend, J. S., motion of electrons in gases, A., 1300.
- Townsend, J. S., and MacCallum, S. P., electrical properties of monatomic gases, A., 567.
- Toy, F. C., mechanism of formation of the latent photographic image, A., 720.
- Toyama, Y., constitution of zoomaric acid, A., 154.
- constitution of cetoleic acid, A., 154.
- composition of the body oil from sperm whale. I. Fatty acids. II. Unsaponifiable matter, B., 202.
- Toyama, Y., and Tsuchiya, T., fatty acids of shark- and ray-liver oils. IV. Fatty acids of kokonohoshi-ginzame liver oil, B., 201.
- Toyoda, S., oxidation of amino-acids. I. Effect of temperature on the oxidation of amino-acids by animal charcoal. II. Effect of amines, A., 623.
- Tozier, G. H., and Eastman Kodak Co., lowering the viscosity of nitrocellulose in solutions by mechanical action, (P.), B., 400.
- Tracey, A. F., a new jelly strength tester and some experiments with gelatin gels, B., 310.
- Trachsel, F., Wiedmer, J., and Zigerli, P., production of objects of artificial stone, (P.), B., 93, 369*.
- Tracy, W. C., apparatus for the recovery of minerals from ore, (P.), B., 197.
- Trakas, V. See Ostwald, Wolfgang.
- Trapesnikov, A., dehydration of barium platinocyanide by X-rays, A., 495.
- Trapp, H., manufacture of pure zirconium sulphate, (P.), B., 124*.
- chemistry and technology of zirconium oxide, B., 481.
- Traube, I., and Birutovitch, S., adsorption of vapours by carbon and silica gel, A., 471.
- Traube, I., and Dannenberg, F., permeability, A., 1151.
- Traube, I., and Jacoby, (Frl.) D., reduction of auric chloride in presence of lyophilic colloids, A., 475.
- Traube, I., and Magasanik, J., new viscosimeter and stagonometer, B., 111.
- Traube, W., Blaser, B., and Grunert, C., sulphuric esters of cellulose, A., 621.
- Traubenberg, H. R. von, Stark effect of the second order in hydrogen, A., 1066.
- Traubenberg, J., and Wasserman, E., chlorination of naphthalene in benzene solution, A., 1365.
- Traumer, O., motion of sub-microscopic silver particles in gases, A., 474.
- Traun, H. O., and Traun & Söhne, H., containers for hydrofluoric acid and other highly corrosive chemicals, (P.), B., 568.
- Traun & Söhne, H. See Steppes, F. E. K., and Traun, H. O.
- Trautmann, J., vertical retort, (P.), B., 5.
- carrying-out catalytic chemical processes, (P.), B., 320.
- synthesis, distillation, cracking, and hydrogenation of hydrocarbon oils, (P.), B., 779.
- extraction of hydrocarbon oils from coal, (P.), B., 884.
- Trautner, W. See Berliner, R.
- Trautz, M., and Trautz, O., critique of the electrical differential method of measuring the specific heats of gases at constant volume, A., 827.
- Trautz, O. See Trautz, M.
- Travers, A., analytical consequences of the region of stability of cryolite, A., 38.
- Travers, A., and Sehnoutka, hydrated tricalcium aluminate, A., 1104.
- Travers, J. T., and Travers-Lewis Process Corporation, treatment of sewage and industrial waste; purification of tannery waste, (P.), B., 588.
- Travers, M. W., processes involving the carbonisation of coal by internal heating, B., 77.
- chemical study of processes involving carbonisation of coal by internal heating, B., 436.
- complete gasification of coal for towns' gas, B., 775.
- Travers, M. W., Clark, F. W., and Regenerative Coal Gasification System, Ltd., apparatus for manufacture of mixed gas, (P.), B., 739*.
- Travers, M. W., Clark, F. W., and Travers & Clark, Ltd., manufacture of gas from coal, (P.), B., 595*.
- Travers, M. W. See also Regenerative Coal Gasification System, Ltd.
- Travers & Clark, Ltd. See Travers, M. W.
- Travers-Lewis Process Corporation. See Travers, J. T.
- Travers Process Corporation. See Urbain, O. M.
- Travis, E. C. See Wood, A. E.
- Travniček, M., spectrum of calcium-strontium sulphide-samarium mixed phosphors, A., 106, 459.
- Traxler, R. N., effect of temperature on rate of osmosis, A., 232.
- Traxler, R. N. See also Kahlenberg, L.
- Treadwell, W. D., and Schwarzenbach, G., hypophosphoric acid, A., 608.
- electrometric titration of phenols in alcoholic solution, A., 628.
- Trebitsch, F., fluorine content of teeth, A., 194.
- Tréfouel, (Mme.). See Fourneau, E.
- Tréfouel, J. See Établissements Poulenc Frères.
- Treibs, A., and Wiedemann, E., chlorophyll. III., A., 1383.
- Treibs, A. See also Fischer, Hans.
- Treibs, W., behaviour of cyclic ketones when heated, A., 641.
- Treibs, W., and Schmidt, Harry, catalytic dehydrogenation of hydroaromatic compounds, A., 68.
- oxidation of reactive methylene groups, A., 525.
- Treichel, O., printing in greasy inks with gelatin printing surfaces, (P.), B., 341.
- Treichel, O. See also Excelsior Feuerlöschgeräte A.-G.
- Trelease, H. M. See Trelease, S. F.
- Trelease, S. F., and Trelease, H. M., susceptibility of wheat to mildew as influenced by salt nutrition, B., 535.

- Trelease, *S. F.* See also Barton, *L. V.*
- Treloar, *A. E.*, and Harris, *J. A.*, criteria of the validity of analytical methods used by cereal chemists, B., 909.
- Tremearne, *T. H.* See Bartlett, *E. P.*
- Trénel, *M.*, apparatus for the electrometric determination of hydrogen-ion concentration, (P.), B., 199*.
- Trénel, *M.* See also Schmidt, *Erich.*
- Trent, *W. E.*, and Trent Process Corporation, prevention of [coal] mine explosions, (P.), B., 292*.
- [batch] distilling apparatus for carbonaceous fuel; carbonising process, (P.), B., 436.
- continuous distillation of carbonaceous fuel, (P.), B., 778.
- Trent Process Corporation. See Trent, *W. E.*
- Treuhand-Ges.m.b.H. Bartmann & Co., treatment of cereals, (P.), B., 425.
- Treuhand-Ges.m.b.H. Bartmann & Co. See also Bartmann, *L.*
- Trewendt, *G.* See Rosenheim, *A.*, and Ullmann, *F.*
- Trickey, *J. P.*, Miner, *C. S.*, and Quaker Oats Co., furfuraldehyde resins; furfuryl alcohol resins; furan derivatives; resinous substance, (P.), B., 419.
- Trifonov, *N. A.*, magnetic susceptibility of binary liquid systems, A., 116.
- magnetic rotation of the plane of polarisation by binary liquid mixtures, A., 116.
- Trifonov, *N. A.*, Samarina, *K. I.*, Anosov, *V. J.*, and Tscherbob, *S. I.*, certain physical properties of mixtures of solutions of hydrochloric acid with sodium and potassium hydroxides, A., 117.
- Trillat, *J. J.*, X-ray study of cellulose and cellulose acetates, A., 466.
- study of the structure of electrolytic copper by means of X-rays, A., 822.
- new method of X-ray spectroscopy; orientation of fatty acids on mercury, A., 938.
- Trilling, *F.*, utilisation of nitrogen by grass land in the North Sea marshlands, B., 496.
- Trimble, *H. C.*, and Maddock, *S. J.*, effect of insulin on sugar content of erythrocytes, A., 1058.
- Trimble, *H. M.*, variation of the capillary action of solutions with time, A., 1088.
- Trimble, *H. M.* See also Bigelow, *S. L.*
- Tripp, *C. D.*, oil-shale distillation apparatus, (P.), B., 291.
- Trist, *A. R.*, screens for photographic purposes, photo-mechanical printing processes, etc., (P.), B., 317.
- mercurial printing surface, (P.), B., 390*.
- Trivas. See Cristol, *P.*
- Trivelli, *A. P. H.*, vacuum stopcock, A., 862.
- tentative hypothesis of the latent image. I. and II., B., 107, 212, 245*.
- Trivelli, *A. P. H.* See also Whiteman, *E. P.*
- Trivide, *J.*, adsorption of iodine by carbon from certain organic solvents, A., 471.
- adsorption of iodine by charcoal in some mixtures of organic solvents, A., 701.
- Trobridge, *G. W.* See Dunlop Rubber Co., Ltd., and Klein, *P.*
- Trocknungs-, Verschwelungs-, & Vergasungs-Ges.m.b.H., separation of coke or half-coke from dry distillation gases, (P.), B., 632.
- removal of dust from hot gases containing dust and oil particles, (P.), B., 802.
- Trocknungs-, Verschwelungs-, & Vergasungs-Ges.m.b.H., and Bartling, *F.*, annular rotary-hearth (sole plate) ovens, (P.), B., 39.
- Trocknungs-, Verschwelungs-, & Vergasungs-Ges.m.b.H., and Honigmann, *L.*, apparatus for the continuous drying or distillation of fine granular masses, (P.), B., 658.
- Trocknungs-, Verschwelungs-, & Vergasungs-Ges.m.b.H., Honigmann, *L.*, and Bartling, *F.*, distillation of fine granular coal or bituminous material, (P.), B., 436.
- Tröger, *J.*, alkaloid in spurious angostura bark, A., 532.
- Trömer, *B.* See Brintzinger, *H.*
- Trogus, *C.*, and Abd El Shahid, *M.*, mol. wt. of cellulose nitrate in molten camphor, A., 583.
- Trogus, *C.* See also Askenasy, *P.*, and Hess, *K.*
- Trojan Powder Co. See Snelling, *W. O.*
- Troller, *A.* See Faltis, *F.*
- Trollhättans Elektrotermiska Aktiebolag, continuous manufacture of lead carbonate or of mixtures of lead carbonate and zinc oxide directly from ores, (P.), B., 932.
- Tron, *E.*, composition of intraocular fluids. I. Ox and horse, A., 319.
- Tronolone, *D.* See Kelley, *W. V. D.*
- Tronov, *B. V.*, Diakonova-Schulic, *L. N.*, Gulaeva, *O. J.*, and Nikiforova, *N. S.*, strength of the linkings between hydrocarbon radicals and oxygen in simple and mixed ethers; mechanism of esterification and hydrolysis of esters, A., 44.
- Tronov, *B. V.*, and Gersevic, *A. J.*, activity of halogen derivatives of the propyl series, A., 732.
- Tronov, *B. V.*, and Herschkevitch, *A. T.*, influence of a third substance on the rate of reaction of organic halogen derivatives with amines, A., 648.
- Tronov, *B. V.*, and Lukanin, *M. A.*, mechanism of the action of oxidising agents on alcohols, A., 615.
- rate of oxidation of alcohols, ethers, and esters by potassium permanganate and chromic anhydride under various conditions, A., 733.
- Tronov, *B. V.*, Lukanin, *A. A.*, and Pavlinov, *J. J.*, rate of oxidation of alcohols by potassium permanganate, A., 733.
- Tronov, *B. V.*, Udodov, *B. F.*, and Tschishova, *M. J.*, rate of oxidation of alcohols by chromic and nitric acids in aqueous solution, A., 733.
- Troop, *R. S.*, and Wheeler, *F.*, drying of clay under definite conditions. I., II. and III. Relation between drying rate and air condition, B., 569.
- Tropp, *C.*, action of carbonyl chloride on polypeptide derivatives of *p*-aminobenzoic acid; formation of 1:3-substituted hydantoins, A., 1025.
- Tropp, *C.* See also Hees, *H.*, and Weise, *W.*
- Tropsch, *H.*, equilibrium conditions in the formation of hydrocarbons and alcohols from water-gas, B., 147, 699.
- present-day knowledge of the humus and bituminous constituents of coals, B., 177.
- production of *n*-butyl alcohol, acetone, and methyl alcohol from maize, B., 281.
- Tropsch, *H.* See also Fischer, *F.*
- Trostler, *F.*, and Chemische Fabrik Johannisthal G.m.b.H., utilisation of the contents of used dry batteries, (P.), B., 612.
- Trotman, *E. R.* See Trotman, *S. R.*
- Trotman, *S. R.*, Trotman, *E. R.*, and Brown, *J.*, action of chlorine and hypochlorous acid on wool, B., 184.
- action of acids on wool, B., 184.
- action of formaldehyde on wool, B., 256.
- Trotter, *G. H.*, [closure-plates for] electric accumulators, (P.), B., 339.
- Troxler, *B.*, and Hercules Powder Co., preparation of progressive burning smokeless powder, (P.), B., 349.
- Trucco, *A.*, choice and co-ordination of electrolytic, gravimetric, and volumetric methods for the analysis of white metals, bronzes, and ordinary and special brasses, B., 126.
- Truffaut, *G.*, and Bessonoff, *N.*, efficacy of mixtures of natural and soluble phosphates, as measured by a bacteriological method, and the effect on the higher plants, B., 278.
- Trumble, *M. J.*, apparatus for recovering the volatile products from carbonaceous material, (P.), B., 115.
- refinery power plant [for hydrocarbon oils], (P.), B., 252.
- combined distillation and cracking process [for hydrocarbons], (P.), B., 326.
- production of power [from low-grade fuel], (P.), B., 436.
- distillation of solid carbonaceous material, (P.), B., 631.
- recovering light hydrocarbons from carbonaceous material, (P.), B., 664*.
- Trumbull, *H. L.*, Dickson, *J. B.*, and Goodrich Co., *B. F.*, dispersion of rubber into a colloidal substance, (P.), B., 494.
- Trummel, *P.* See Anschütz, *R.*
- Trumper, *M.* See Leffmann, *H.*
- Trumpy, *B.*, continuous absorption in sodium vapour, A., 567.
- transition probabilities in the lithium atom II, A., 1067.
- Trusler, *H. M.*, Fisher, *W. S.*, and Richardson, *C. L.*, chemical changes in blood in mercuric chloride poisoning, A., 444.
- Trusler, *R. B.*, and Roessler & Hasslacher Chemical Co., manufacture of acylamides, (P.), B., 255.
- Truszkowski, *R.*, purine metabolism. V. Nuclear-plasmio ratio of frogs, A., 325.
- structure and enzyme reactions. IV. The system glycogen-amylase-lipoids, A., 795.
- purinolytic enzymes of the leech (*Hirudo medicinalis*) and the fresh-water mussel (*Anodonta*), A., 1277.
- Truszkowski, *R.* See also Przylecki, *S. J.*
- Tryhorn, *P. G.*, and Wyatt, *W. F.*, adsorption. IV. adsorption by coconut charcoal from binary mixtures of saturated vapours; the systems methyl alcohol-benzene, ethyl alcohol-benzene, *n*-propyl alcohol-benzene, and *n*-butyl alcohol-benzene, A., 118.

- Tsakalotos, A. E., red and blue colouring matters of flowers and fruits, A., 335.
- Tschepelevetzki, M., adsorption in solutions. XV. Hydrolytic and molecular adsorption of the alkaline-earth halides on carbon, A., 1087.
- Tscherbov, S. I., electrical conductivity of binary liquid systems, A., 135.
- Tscherbov, S. I. See also Trifonov, N. A.
- Tscherniaev, I. I., optical activity of platinum, A., 974.
- platinum nitrides. III. and IV., A., 974.
- Tschernichof, S. A., determination of antimony in bronze, brass, and similar alloys, B., 371.
- Tschernick, G., composition of two Madagascar minerals: ampingabeite and columbite, A., 148.
- Tschernojarov, A. A. See Vanin, J. J.
- Tschernoshukov, N., determination of tarry substances in oil products, B., 114.
- determination of paraffin in petroleum products, B., 114.
- distillation of oil products in a stream of different gases, B., 559.
- treatment of bottoms from the lubricating oil fraction of Emba crude oil, B., 661.
- comparison of Diesel fuel oils from Baku, Grozni, and Emba, B., 777.
- Tschernuchin, A., Russian essential oils, B., 799.
- Tschesno, D. See Le Blanc, M.
- Tschetvergov, M. See Ratelade, J.
- Tschilikin, M. M., bleaching of "back-greys" [in printing] stained with indanthrene dyes, B., 11.
- indigo losses in the indigo-vat, B., 521.
- Tschishova, M. J. See Tronov, B. V.
- Tschitschibabin, A. E., tautomerism in pyridine compounds. V., A., 302*.
- Tschitschibabin, A. E., and Benevolenskaja, S. W., tautomerism in the pyridine series; diphenylpyridylmethane and its derivatives, A., 528.
- Tschitschibabin, A. E., and Egorov, A. F., chlorination of 2-aminopyridine, A., 1024.
- Tschitschibabin, A. E., Elgasine, S., and Lengold, V., aromatic compounds containing a *tert*-butyl group, A., 404, 747*.
- Tschitschibabin, A. E., and Kirsanov, A. V., nitroamines of the pyridine series; 3-nitroaminopyridine, A., 185, 647*.
- simple homologues of codeine, A., 188, 781*.
- nitro-2-acetamidopyridines, A., 301, 773.
- nitro-derivatives of methylated forms of 2-aminopyridine. II., A., 899, 1378.
- reactions of bromo-derivatives of 2-aminopyridine, A., 899.
- reactions of the bromo-substituted derivatives of 2-aminopyridine, A., 1379.
- Tschitschibabin, A. E., and Krunjan, I. L., 2-dimethylaminopyridine and its derivatives, A., 427, 773*.
- 2-methylaminopyridine and its derivatives, A., 1378.
- Tschitschibabin, A. E., and Oparina, M. P., condensation of crotonaldehyde with ammonia in presence of alumina, A., 647*.
- condensation of acetaldehyde and paracetaldehyde with aniline in presence of alumina, A., 650*.
- Tschitschibabin, A. E., and Preobraschenski, V. A., 2:2'-dipyridylamine and its nitro-derivatives, A., 307, 775*.
- Tschmutov, K. See Schilov, N. A.
- Tschopp, E., micro-determination of chlorides in biological liquids and organs, A., 96.
- micro-determination of magnesium in biological liquids and organs, A., 96.
- Tschugaev, L. A., new series of acido-amido-tetrammine derivatives of quadrivalent platinum, A., 143.
- Tschugaev, L. A., Skanavi-Grigorova, M. S., and Posnjak, A., platinum compounds of hydrazine and carbylamines, A., 142.
- Tsuboi, S., fibrous structure in metals deposited by the difference of electrolytic solution pressures, A., 1175.
- Tsuchiya, T. See Toyama, Y.
- Tsuda, S., structure viscosity of some sols of polymeric carbohydrates, A., 1091.
- Tsuji, T. See Tadokoro, T.
- Tsujimoto, M., chemical constitution of selacholeic acid, A., 394.
- constitution of tetradecenoic acid from tsuzu oil, B., 825.
- tetradecenoic acid from sperm oil, B., 825.
- Tsujimoto, M., and Kimura, K., calamary oil of Hokkaido, B., 340.
- Tsukahara, T. See Okada, S.
- Tsukamoto, Y., general theory of distillation of liquid mixtures of many components and its experimental verification, A., 1190.
- Tsuneyoshi, K., effect of temperature on the oxidation of pyruvic and fumaric acids by tissue, A., 550.
- effect of lipin on the dehydrogenating power of tissue, A., 550.
- effect of lipin and allied substances on the oxidative activity of tissues, A., 791.
- oxygen consumption by various tissues and by muscle of various animals, A., 791.
- Tsunokae, R., determination of the degumming powers of soaps [for boiling-off silk], B., 491.
- Tsurumi, S., Murakoshi, S., and Yamasaki, R., syntheses of β -4-hydroxy-3-methoxystyryl *n*-propyl and *n*-amyl ketones, A., 1014.
- Tsutsui, H. See Kusakari, H.
- Tsutsumi, J., examination of the micro-crystals of calcium carbonate in molluscan shells by means of X-rays. I., A., 1175.
- Tsvibel, V. N., protection of steel against oxidation at the end of the open-hearth process, and decrease in the amount of gas occluded, B., 929.
- Tuck, D. A., Fort, A., and Tuck & Sons, Ltd., R., production of designs on celluloid, metal, etc., (P.), B., 528.
- Tuck & Sons, Ltd., R. See Tuck, D. A.
- Tucker, C. W. See Bancroft, W. D.
- Tucker, E. L. See Buchanan, G. H.
- Tuckett, F. S., drying granular and pulverulent materials, (P.), B., 772.
- Tüdds, E., and Ebel, A., serum in scarlet fever, A., 1048.
- cerebrospinal fluid in meningitis tuberculosa, A., 1049.
- Tulaikov, N., and Kozhevnikov, A., absorption of rain water during vegetation by the soil and its utilisation by plants, B., 343.
- Tullis, D. R., treatment of aluminium and aluminium alloys with chlorine, B., 714.
- Tully, A. V., gas-generating plants, (P.), B., 883.
- Tully, B. J., refractometer for determining the refractive indices of gem-stones, crystals, and liquids, A., 39.
- Tung, P. C., Chang, H. C., and Ling, S. M., pituitary and urinary excretion of phosphate, sulphate, and chloride, A., 799.
- Tunison, B. R., ore concentration, (P.), B., 677.
- Tuorila, P., ultramicroscopical method for determining the charge on colloidal particles, A., 235.
- relations between coagulation, electrokinetic migration velocity, ion hydration, and chemical effect; investigations on clay, quartz, and permutite suspensions, A., 950.
- Tuorila, P. See also Wiegner, G.
- Turcatti, E. S., glycolysis of dextrose and laevulose in the blood of normal and diabetic dogs, A., 437.
- degradation of dextrose and laevulose in normal and experimentally diabetic dog's blood, A., 1395.
- Turkington, V. H., and Bakelite Corporation, continuous preparation of phenolic resins, (P.), B., 376.
- resinous composition, (P.), B., 681.
- Turnbow, G. D., and Nielson, K. W., viscosity and the ice cream mix, B., 727.
- Turnbull, A., determination of insoluble [matter] in tanning extracts, B., 534, 617*.
- Turnbull, N. K., bath for galvanising, (P.), B., 609.
- Turner, A. J., relation between atmospheric humidity and breaking strengths and extensibilities of textile fabrics before and after weathering, B., 563.
- Turner, B., and Ferro-Arc Welding Co., Ltd., manufacture of electrodes, welding rods, etc., for use in arc welding and depositing metal, (P.), B., 413, 760, 932.
- electrodes, etc., for the fusion deposition [arc-welding] of alloys, (P.), B., 932.
- Turner, C., [low-temperature] carbonising or like retorts, (P.), B., 777.
- Turner, C. W., destructive distillation of hydrocarbons, (P.), B., 7.
- Turner, E. E. See Brewin, A., Le Fèvre, R. J. W., Mayes, H. A., and Rudd, H. W.
- Turner, G. See Bramley, A.
- Turner, H. A. See Adam, N. K.
- Turner, Harold A. See Kenner, J.
- Turner, H. L. See Mathers, F. C.

- Turner, L. A., excited systems formed by the absorption of light, A., 601.
 resonance line of the iodine atom and the optical dissociation of iodine molecules, A., 808.
- Turner, L. A. See also Kenty, C.
- Turner, P. E., Page and Williams' method for the determination of the saturation capacity of soils, B., 381.
- Turner, P. W., [paints for] protecting metal, wood, etc., (P.), B., 937*.
- Turner, S. C., azoic [naphthol AS] colours on wool, B., 812.
- Turner, W. E. S., manufacture and use of glasshouse pots in Great Britain, B., 192.
 acceleration of glass melting by the use of volatile constituents in the glass batch mixture, B., 671.
- Turner, W. E. S., and Winks, F., casing of colourless by cobalt blue glass. I. Thermal expansions, B., 404.
- Turner, W. E. S. See also Cousen, A., Dimpleby, V., English, S., and Green, (Mrs.) G. A., Starkie, D., and Winks, F.
- Turner, W. R. See Wilson, J. B.
- Turner Tanning Machinery Co., Ltd., automatic scouring machine for treating hides, (P.), B., 310.
- Turney, E. G. See Courtaulds, Ltd.
- Turney Process, Inc. See Cosier, A. S.
- Turobinski, T. See Lescœur, L.
- Turski, J. S., and Berlandstein, A., nitration of anthracene to 9:9'-dinitro-9:9'-dihydroxy-10:10'-dihydrodianthracene, A., 282.
- Turski, J. S., and Dalinski, J., didiphenylmethane derivatives, A., 1128.
- Turski, J. S., Piotrovski, A., and Vinaver, S., preparation of guaiacolsulphonic acid from *p*-dichlorobenzene, B., 243.
- Turski, J. S. See also Ivanovski, V.
- Tuschinsky, I. See Goldscheider, R.
- Tussenbroek, M. J. van. See Waterman, H. I.
- Tust, P. See I. G. Farbenind. A.-G.
- Tutkevitch, L., the spleen as the regulator of the amino-acid equilibrium of the blood. I. Influence of splenectomy on the amino-acid content of the blood, red corpuscles, and plasma. II. Influence of denervation of the spleen on the amino-acid content of the blood, red corpuscles, and plasma, A., 1150.
- Tutkevitch, L. See also Alpern, D.
- Tuttle, C. See Bourion, F.
- Tutton, A. E. H., hexahydrated double sulphates containing thallium, A., 575.
 hexahydrated double selenates containing thallium; completion of the thallium salts and of the whole monoclinic series, A., 576.
- Tuve, M. A. See Breit, G.
- Tuvim, L. See Myssovski, L.
- Tuzson, P. See Zechmeister, L.
- Tweedy, S. K. See Partington, J. R.
- Twenhofel, L. H., changes in the oxidation of iron in magnetite, A., 1210.
- Twiss, D. F., sulphur in rubber manufacture, B., 649.
- Twiss, D. F. See also Dunlop Rubber Co., Ltd.
- Two-Tone Corporation. See Mijer, P.
- Twyman, F. See Hilger, Ltd., A.
- Twynam, T., recovery of tin from tin scrap or cuttings, (P.), B., 863.
- Tychowski, A. See Kobel, M., and Polak, F.
- Tyden, S., "natrolite" filter for water-softening, B., 944.
- Tyler, J. See DeOng, E. R.
- Tyndall, E. P. T., magnetic properties of thin films of electrolytic iron, A., 7.
- Typke, K., sulphuric acid test for mineral oils, B., 250.
 regeneration of used [lubricating and insulating] oils, B., 290.
 changes in transformer oils. II., B., 435.
 evaluation of used transformer and switch oils for further use, B., 918.
- Typke, K. See also Heyden, H. von der.
- Tyrer, D., manufacture of fertilisers, (P.), B., 498.
- Tyson, F. See Hill, A. J.
- Tytschinin, B., and Tokmanov, V., activated silica gel (sulphosil), B., 602.
- Tyvoňuk, Z. See Herasymenko, P.
- U.
- U. G. I. Contracting Co. See Fulweiler, W. H.
- Uchida, K., effect of dextrose and dihydroxyacetone on the blood-sugar value, A., 539.
- Uchida, S., application of low-temperature carbonisation to gas-producer practice, B., 393.
- Uchida, Shun-ichi, catalytic decomposition of nitric oxide, A., 252.
- Uchida, So, essential oil of "hiba" wood and its relation to the resistability of the wood against corrosion, B., 768.
 essential oil of leaves of "hiba," B., 768.
 essential oil of leaves of "hinoki," B., 768.
 essential oil of leaves of "sawara," B., 768.
- Uchiyama, K., determination of haemoglobin by means of the silver iodide photogalvanic cell, A., 910.
- Udaka, H., effect of printing, discharging, and stripping agents on muslin. I. Rongalite groups and decoline. II. Blankit, hyposulphite, sodium bisulphite, and steaming pressure. III. Ageing test. IV. Destruction of wool by hyposulphite groups, B., 925.
- Udale, S. M., and Holley, E., iron mould, (P.), B., 304.
- Udluft, H., zeolites as fossilising substances, A., 1110.
- Udodov, B. F. See Tronov, B. V.
- Ueberrack, K. See Höglér, F.
- Uehler, B., dissolution and hydration velocities of kieserite, A., 963.
- Ueda, H., condensation of glycine anhydride with *o*-, *m*-, and *p*-nitrobenzaldehyde; formation of 3-aminohydrocarbostyryl and 2:5-diketo-3:6-di-*o*-nitrobenzylidenepiperazine, A., 303.
- Ueda, K. H., X-ray examination of celluloid, A., 818.
- Ueda, Y., and Hata, K., cellulose formate. I. Formation [from hydrocellulose and cellulose regenerated from viscose], A., 399.
- Ueda, Y., Kasama, K., and Kimura, K., bamboo. I. Composition of the bamboo "mōsō-chiku," B., 477.
- Ueda, Y., and Kato, K., cellulose formate. II. Formation of cellulose formate, A., 1226.
- Ueda, Y., and Yoshida, T., researches on wood chemistry. III. Composition of "tsuga" and "momi," B., 257.
- Uemura, T., Japanese minerals containing rarer elements. VI. Beryl from Ishikawa, Iwaki Province, A., 1211.
- Uemura, T., and Tabei, S., spectrochemical studies of hydroxy-azo-compounds. VI., A., 749.
- Ueno, S., influence of cations on the action of lipase, A., 445.
- Ueno, S., and Kuzei, M., hydrogenation of methyl oleate, erucate, cetoleate, and clupanodonate, A., 272.
 increase in the free fatty acid content in herring oils during preservation, and influence of various substances on the increase, B., 201.
- Ueno, S., and Okamura, Z., formation of isoacids during the hydrogenation of fatty oils. IV. Presence of isoacids in hardened plaice oil, B., 339.
- Ueno, S., and Saida, T., negative catalysts for the hydrogenation of fatty oils. IV. Influence of impurities in the catalyst-carriers, A., 253.
- Ueno, S., Yamashita, M., Ota, Y., and Okumura, Z., nutritive value of hydrogenated oils, A., 324.
- Ueno, S., and Yasuhara, K., acetyl value of Japanese fish oils in the hardened oil industry, B., 202.
 quality of fish oils from the point of view of the hardened oil industry of Japan. II. Sardine oil, B., 202.
- Ufford, C. W., electrical resistance of alloys under pressure, A., 1178.
- Uglow, W. A., and Schapiro, A. M., determination of caffeine in tea, B., 544.
- Ugolotti, E., pharmacology of a mercury colloid, A., 549.
- Uhde, G. F., separation of ammonia from gases and mixtures, (P.), B., 482.
 purification of gases [in synthesis of ammonia], (P.), B., 858*.
 synthetic production of ammonia, (P.), B., 858*.
- Uhde, R. See Buchner, M.
- Uhl, A., buffering in soils, B., 458.
- Uhle, D. J. See Amme, E.
- Uhlmann, A., manufacture of coherent, granular, non-metallic substances (e.g., glass, enamel), (P.), B., 264.
- Ulander, P. H. N., preheated air for boiler furnaces, B., 215.
- Ulčák, A. See Schneider, J., jun.

- Ulich, H., and Birr, E. J., molecular state of salts in solutions, A., 1320.
- Ulich, H. See also Walden, P.
- Ullmann, F., production of photozincograph printing surfaces, (P.), B., 503.
- Ullmann, F., Trewendt, G., and Michael & Co., J., manufacture of arsenic acid, (P.), B., 670.
- Ulmann, M., benzene model based on the electron theory and the substitution laws, A., 1125.
- Ulrich, F., form of organically deposited calcium carbonate, and influence of the medium, A., 1177.
- Ulrich, F., and Jirkovsky, R., slavikite, A., 1210.
- Ulrich, F., and Veselý, V., sphalerite from Mantov, near Cholesov, A., 1350.
- Ultée, A. J., "balanophorin," A., 294.
- essential oil from *Gastrochilus panduratum*, Ridl., B., 465.
- Ulzer, F. See Gottfried, S.
- Umanova-Zavadovski, E. See Zavadovski, B.
- Umbach, T., use of the Einhorn fermentation saccharimeter for the determination of sugar, B., 461.
- Umino, S., latent heat of fusion and heat of transformation of some metals [manganese, thallium, iron, and steel], A., 227.
- heat of fusion and heat of the new transformation of tellurium, A., 1083.
- heat of the A2 and A3 transformations in carbon steels, B., 232.
- heat content and sp. heat of some [blast-furnace and open-hearth] slags at high temperatures, B., 896.
- Umnova, (Mlle.) A. I., transformation of oxoetenol into acetyl-methyl-*tert*-butylcarbinol, A., 740.
- transformation of isobutyryldimethylcarbinol into acetyl-methylisopropylcarbinol, A., 740.
- Umnova, (Mlle.) A. I. See also Favorski, A. E.
- Underhill, F. P., and Dimick, A., production of hyperglycemia by subcutaneous injections of arsenious oxide in the rabbit, A., 325.
- effect of arsenic compounds on excretion of sulphur, A., 548.
- distribution of arsenic in the tissues after serial administration of neoarsphenamine, A., 670.
- Underwood, J. E. See Shaw, W. M.
- Unger, H. See Rosenhauer, E., and Weichardt, W.
- Unger, M., and General Electric Co., electric furnace, (P.), B., 645.
- Unger, M. See also British Thomson-Houston Co., Ltd.
- Ungnade, O., applicability of the methods of beet sugar factories to the production of lactose, B., 422.
- Union Carbide Co. See Erickson, A. N.
- Union Carbide Sales Co. See Clark, L. F.
- Union Minière du Haut-Katanga. See Carnahan, T. S.
- United Chromium, Inc. See Schwartz, K. W.
- United Filters Corporation. See Campbell, R. C.
- United Glass Bottle Manufacturers, Ltd., and Moorshead, T. C., glass furnaces, (P.), B., 859.
- United Glass Bottle Manufacturers, Ltd., Pryor, E. A. C., and Hurlbut, F. A., annealing of glass articles, (P.), B., 484.
- United Hydrocarbons Co. See Clarke, A.
- United Products Corporations of America, art of galvanoplasty, (P.), B., 717.
- United Refineries Co. See Kormann, F. A.
- United Shoe Machinery Corporation. See Kelley, H. W., and Merritt, M. M.
- United States. See Lueck, R. H., Nelson, E. K., and Reed, J. O.
- United States, Bureau of Standards, light metals and alloys; aluminium; magnesium, B., 302.
- United States Coal Manufacturing Co. See Miller, W. T.
- United States Envelope Co. See Swett, C. E.
- United States Farm Feed Corporation and Mabee, C. R., manufacture of live-stock feeds, (P.), B., 425.
- United States Foil Co. See Golden, W. G.
- United States Gypsum Corporation. See Brookby, H. E.
- United States Industrial Alcohol Co., production of absolute alcohol, (P.), B., 241.
- purification of liquids by distillation, (P.), B., 462.
- United States Industrial Alcohol Co., and Keyes, D. B., dehydration of alcohol by distillation, (P.), B., 32.
- United States Industrial Alcohol Co., and Schreiber, W. T., method of retarding or preventing the corrosion of metal containers containing alcohol, (P.), B., 254.
- United States Industrial Alcohol Co. See also Keyes, D. B.
- United States Metals Refining Co., and Marks, A., manufacture of magnesite refractories, (P.), B., 125.
- United States Processes, Inc. See Stokes, W. E.
- United States Radium Corporation. See Hahn, O.
- United States Rubber Plantations, Inc., Gibbons, W. A., and McGavack, J., treatment of latex and products obtained therefrom, (P.), B., 904*.
- United States Rubber Plantations, Inc. See also Gibbons, W. A.
- United States Smelting, Refining, & Mining Co., purification of antimonial lead alloys, (P.), B., 452.
- United States Smelting, Refining, & Mining Co. See also Wichman, F. M.
- United Verde Extension Mining Co. See Prince, G. W.
- United Water Softeners, Ltd., and Higgins, E. B., apparatus for the softening of water, (P.), B., 110.
- apparatus for carrying-out reactions involving base exchange, (P.), B., 550.
- United Water Softeners, Ltd., Thomson, R. H., and Lawrence, H. S., [automatic] apparatus for softening or purifying water or for carrying-out processes based on exchange reactions, (P.), B., 350.
- United Water Softeners, Ltd. See also Hatfield, H. S., and Higgins, E. B.
- Universal Oil Products Co. See David, A. D., Dubbs, C. P., Egloff, G., Gary, L. J., Halle, H. J., Hanna, R. W., Henny, V., Howard, W. R., Oberle, A., Pollock, R. T., and Sims, G. D.
- University of Illinois. See Brown, H. A.
- University Patents, Inc. See Zucker, T. F.
- Unmack, (Frl.) A., equilibrium between methoxide and hydroxyl ions in mixtures of methyl alcohol and water: I., A., 18.
- equilibrium between methoxide and hydroxyl ions in mixtures of methyl alcohol and water. II. Electrometric hydrogen-ion measurements, A., 365.
- equilibrium between methoxide and hydroxyl ions in mixtures of methyl alcohol and water. III. Calculation of the equilibrium constant from the dissociation constants of methyl alcohol and water, A., 589.
- Uno, S., apparatus for the determination of fatty materials, B., 200.
- Unsold, A., emission spectrum of the chromosphere, A., 450.
- structure of Fraunhofer lines and quantitative spectrum analysis of the atmosphere of the sun, A., 456.
- Upson, F. W., Sands, L., and Whitnah, C. H., preparation and properties of *l*-mannono- and *l*-glucono-lactones, A., 395.
- Uphegrove, C., and Baker, E. M., photomicrographic study of rough or nodulised electrodeposited nickel, B., 450.
- Urano, S., bleaching powder. VII. Decomposition of calcium hypochlorite by heat in presence of calcium chloride, A., 379.
- bleaching powder. VIII. Decomposition of calcium hypochlorite by carbon dioxide, A., 720.
- Urazov, G. G., and Vlodavtza, N. I., physico-chemical examination of the Borovitchi refractory clays, B., 671.
- Urbach, E., and Fantl, P., quantitative analysis of skin. I. and II. Sugar content of normal skin, A., 913.
- Urbach, F. See Blank, F., and Müller, Adolf.
- Urbain, E., simultaneous production of a gas of the nature of water-gas, phosphoric acid, and an aluminium silicate slag having the same composition as a cement, (P.), B., 91.
- manufacture of activated charcoal, (P.), B., 252.
- adsorbent medium [carbon], (P.), B., 883.
- Urbain, E., and Henri, V., formation of ammonia in the preparation of phosphorus, A., 604.
- Urbain, E., and Urbain Corporation, manufacture of agglomerated carbonaceous material, (P.), B., 252*.
- active carbo-mineral product [mineralised charcoal], (P.), B., 919*.
- Urbain, O. M., availability of nitrate oxygen in filter effluents, B., 588.
- dialysis of putrescible liquids, B., 732.
- Urbain, O. M., and Travers Process Corporation, dialysis of [putrescible] liquids, (P.), B., 734.
- Urbain Corporation, separation of gases from mixtures thereof, (P.), B., 774.
- Urbain Corporation. See also Urbain, E.
- Urban, H. See Hägglund, E.
- Urban, S. F. See Schneidewind, R.
- Urbana Coke Corporation, tar and a process of obtaining the same, (P.), B., 663.

- Urbana Coke Corporation, Parr, *S. W.*, and Layng, *T. E.*, coking of coal, (P.), B., 219.
- Urechia, *C. I.*, and Popoviciu, *G.*, experimental tetany, A., 791
- phosphorus and calcium in blood after injection of brewer's yeast, A., 1051.
- phosphorus and calcium in the blood in Parkinsonism after injection of ergotamine and hyoscine, A., 1274.
- Urey, *H. C.* See Rice, *F. O.*, and Smallwood, *H. M.*
- Urfer, *C.* See Duparc, *L.*
- Urion, preparation of $\Delta\alpha$ -heptadi-inene and $\Delta\beta$ -octadi-inene, A., 151.
- Urk, *H. W. van*, apparatus for titration with carbonate-free sodium hydroxide, A., 980.
- sensitive modification of colour reaction for quinine, A., 1145.
- examination of clove oil, B., 623.
- Urry, *W. D.* See Perman, *E. P.*
- Urushibara, *G.*, ethyl 1:2:3:6-tetracarboxy-5-methoxy- $\Delta^{2,5}$ -cyclohexadione-1-acetate, a derivative of triethyl aconitate, A., 1374.
- Urushibara, *Y.*, nitrile esters of dicarboxyglutaconic acid, A., 49, 1356.
- condensation of ethyl acetoacetate with sodiomalononitrile, A., 158.
- synthesis of diethyl β -methyl- α -dicyanoglutaconate, A., 744.
- bromination of tetraethyl dicarboxyglutaconate and the constitution of glutaconic acids, A., 1216.
- Ushakov, *M. I.*, macro- and micro-iodometric determination of copper in copper salts of organic acids and enols, A., 1347.
- Usher, *F. L.* See Gaunt, *H.*
- Ussataja, *N.*, and Hochberg, *B.*, temperature variation of the electrical conductivity of crystals, A., 352.
- Ussing, *P. H.*, manufacture of heat- and sound-insulating material, (P.), B., 896.
- Utesoher, *K.*, chemical analysis of soils and the molecular ratios, B., 582.
- Utevski, *A.* See Palladin, *A.*
- Utkin-Ljubovzov, *L.*, antitrypsin of normal serum, A., 83, 662.
- Uyterhoeven, *W.* See Morse, *P. M.*
- V.
- V. L. Oil Processes, Ltd. See Lucas, *O. D.*
- Vacek, *T.*, photo-oxidation of adrenaline, A., 1131.
- Vachuska, *E. J.*, and Bole, *G. A.*, cyanite and diaspore refractories, B., 298.
- Vacuum Oil Co. See Moran, *R. C.*
- Vacuumschmelze Ges.m.b.H., Gruber, *H.*, Rohn, *W.*, and Weber, *O. H.*, metallurgical process [for obtaining metals from oxides, sulphides, etc.], (P.), B., 757.
- Vadas, *R.*, production of saponins from horse-chestnuts, B., 34.
- Vader, *W.* See British Celanese, Ltd.
- Vageler, *H.*, relative solubility of phosphoric acid and potassium in German and tropical soils, B., 683.
- Vageler, *P. W. E.*, "fossil" soils and tropical weathering, A., 391.
- Vahlteich, *H. W.*, action of pepsin of herbivora and carnivora on vegetable and animal proteins, A., 1054.
- Vaidyanathan, *V. I.*, diamagnetic susceptibilities of gases at low pressures, A., 226.
- relation of diamagnetic susceptibility in the liquid and vapour states, A., 353.
- magnetic susceptibility of ozonides, A., 1082.
- Vail, *N. R.* See Boykin, *R. O.*
- Vaillant, *P.*, composition of the Kundt displacements in an absorption spectrum with several maxima, A., 458.
- Vajdaff, *A. von*. See Komlos, *J.*
- Valasek, *J.*, spark spectra of mercury vapour, A., 1167.
- Valdigué, See Abelous.
- Valensi, *G.*, dissociation of chromium nitride, A., 956.
- action of nitrogen on manganese, A., 1104.
- Valentin, *F.* See Votoček, *E.*
- Valentin, *H.*, catalytic synthesis of ammonia, A., 600.
- Valentine, *I. R.*, and General Electric Co., treatment of iron, (P.), B., 19.
- bearing [metal] alloy, (P.), B., 412.
- Valentine, *I. R.* See also British Thomson-Houston Co., Ltd.
- Valenzuela, *A.*, composition and nutritive value of Philippine food fishes, B., 767.
- Valenzuela, *A.* See also Wells, *A. H.*
- Valenzuela, *P.*, and Daniels, *F.*, thermal and photochemical decomposition of caryophyllene nitrosite, A., 250.
- Valer, *J.*, different sulphur contents of haemoglobins from different sources, A., 191.
- Valeton, *J. J. P.*, structure of benitoite, A., 940.
- crystals of 5-methylamino-3-methylhydantoyl-5-methylamido, A., 1178.
- Valeur, *A.*, and Gailliot, *P.*, mechanism of reactions accompanying the formation of Cadet's oil, A., 50.
- Cadet's oil. II. Oxidation of cacodyl oxide, A., 161.
- Valkó, *E.* See Blank, *F.*
- Vallée, *H.* See Caminade, *R.*
- Vallée y Gumá, *A.*, clarification of liquids [sugar juices], (P.), B., 499.
- Vallé-Jones, *F. W.*, production of road-surfacing material, (P.), B., 524.
- Vallez, *H. A.*, process for [rotary] filtering elements, (P.), B., 916*.
- Vanadium Corporation of America. See Norris, *G. L.*
- Van Arsdel, *W. B.* See Richter, *G. A.*
- Vance, *G. M.* See Neller, *J. R.*
- Vance, *J. E.* See Foote, *H. W.*
- Vandavear, *F. E.* See Conner, *R. M.*
- Vanderbilt Co., Inc., *R. T.*, and Somerville, *A. A.*, mineral oil compositions for lubricating, insulating, and other purposes, (P.), B., 222.
- Vanderbilt Co., Inc., *R. T.* See also Chamberlain, *G. D.*
- Vanderstein, *E.*, furnace with blast heater, (P.), B., 57.
- Vandevelde, *A. J. J.*, halogenated proteins. IX. Chloro-ovo-protein, A., 534.
- methods of expressing acidity of solutions, A., 1203.
- action of halogens on milk and its constituents, B., 687.
- Van de Water, *F. C.*, Sunderman, *F. R.*, and Petroleum Laboratories, Inc., oil-cracking apparatus, (P.), B., 149.
- Vandoni, *R.*, and Algrain, *M.*, rapid determination of carbon, nitrogen, and hydrogen in organic compounds, A., 436.
- Van Dyke, *G. D.*, and Lindsay, *G. A.*, LX -ray absorption edges of tin, indium, cadmium, silver, palladium, rhodium, and ruthenium, A., 2.
- Van Dyke, *H. B.*, selective absorption of iodine compounds by the hyperplastic thyroid gland, A., 792.
- Vangelovici, *M.*, mechanism of substitution of bromine in aromatic hydrazones. II., A., 414.
- Vanheiden, *F.* See Ley, *H.*
- Vanick, *J. S.*, deterioration of structural steels in the synthesis of ammonia, B., 17.
- Vanick, *J. S.*, De Sveshnikoff, *W. W.*, and Thompson, *J. G.*, deterioration of steels in the synthesis of ammonia, B., 267.
- Vanin, *J. J.*, and Tshernojarova, *A. A.*, action of iron, cobalt, and nickel carbonates on benzyldiene chloride, A., 758.
- Van Loon, *C.*, preparation of alkali alcoholates [alkoxides] or of compounds containing alcoholic hydroxyl groups, (P.), B., 886.
- Van Natta, *F. J.* See Schoepfle, *C. S.*
- Van Nes, *G. E.*, purification of liquids containing sugar, (P.), B., 832.
- Van Rensselaer Lansingh. See Mackey, *J. C.*
- Van Scoyoc, *G.*, Wehrbeln, *H. L.*, and Lilly & Co., *E.*, calcium-sugar preparations, (P.), B., 140.
- Van Scoyoc, *G.*, Wehrbeln, *H. L.*, Shonle, *H. A.*, and Lilly & Co., *E.*, calcium-sugar preparations, (P.), B., 140.
- Van Slyke, *D. D.*, Hastings, *A. B.*, Hiller, *A.*, and Sendroy, *J. jun.*, gas and electrolyte equilibria in blood. XIV. Base bound by serum-albumin and -globulin, A., 1390.
- Van Slyke, *D. D.*, and Hawkins, *J. A.*, gasometric determination of reducing sugars, A., 1358.
- Van Slyke, *D. D.*, and Hiller, *A.*, gasometric determination of haemoglobin by the carbon monoxide capacity method, A., 1149.
- Van Slyke, *D. D.*, and Sendroy, *J. jun.*, gas and electrolyte equilibria in the blood. XI. Solubility of hydrogen at 38° in blood-serum and corpuscles, A., 1150.
- gas and electrolyte equilibria in blood. XV. Line charts for graphic calculations, A., 1390.
- Van Slyke, *D. D.*, Sendroy, *J. jun.*, Hastings, *A. B.*, and Neill, *J. M.*, gas and electrolyte equilibria in the blood. X. Solubility of carbon dioxide at 38° in water, salt solution, blood-serum, and corpuscles, A., 1150.
- Van Slyke, *D. D.* See also Hastings, *A. B.*

- Van Tassel, *E. D.*, and Van Tassel Co., waterproofing leather and composition therefor, (P.), B., 682.
- Van Tassel Co. See Van Tassel, *E. D.*
- Van Vleck, *J. H.*, dielectric constants and magnetic susceptibilities in the new quantum mechanics. III. Application to diamagnetism, A., 572.
- Van Vleck, *J. H.* See also Hill, *E.*
- Van Voorhis, *C. C.*, and Compton, *K. T.*, heat of condensation of electrons and positive ions on molybdenum, A., 1298.
- Vara-Lopez, *R.* See Feldt, *A.*
- Varcoviei, *H.* See Jonesco-Matiu, *A.*
- Varga, *J.*, hydrogenation of an cocene brown coal under pressure, B., 774.
- Vargha, *L. von.* See Ohle, *H.*
- Varma, *P. S.*, and Gupta, *J. L. D.*, preparation of anthraquinone, A., 181.
- Varma, *P. S.*, and Narayan, *B.*, halogenation. III. Bromination, A., 51.
- Varma, *P. S.* See also Datta, *R. L.*
- Varnau, *B. H.*, and Wayne, *T. B.*, manufacture of sugar, (P.), B., 832.
- Vas, *M.* See Láng, *S.*
- Vašátko, *J.*, adsorption of sucrose by adsorbent carbons, B., 29.
- decomposition of sucrose by adsorbent carbons, B., 29.
- reducing power of adsorptive carbons, B., 323.
- Vascauțanu, (*Mme.*). See Cernătescu, *R.*
- Vasiliev. See Pavovski, *A. E.*
- Vasilii, *C.* See Maxim, *M.*
- Vass, *C. C. N.* See Ingold, *C. K.*
- Vasseur, *A.* See Chauveau, *L.*
- Vassiliev, *A.*, and Kargin, *W.*, volumetric determination of antimony in presence of lead, tin, and copper, A., 384.
- Vassiliev, *N.* See Rupe, *H.* and Sachanov, *A.*
- Vassiliev, *V.*, action of phosphorus pentachloride on ethyl *tert.*-butyl ketone; transformation of β -hydroxy- $\delta\delta$ -dimethyl-pentan- γ -one (trimethylacetyl-methylcarbinol) into acetyl-*tert.*-butylcarbinol, A., 739.
- Vastagh, *G.* See Schulek, *E.*
- Vasuda. See Sugimoto.
- Vanbel, *W.*, detection of nitrous acid, A., 1346.
- bromine-iodine value of butter and other edible fats, B., 60.
- mechanism of the drying of red lead and white lead pigments, B., 418.
- Vanbel, *W.*, and Nedelschiff, *N.*, properties and technical application of camphor oils, B., 284.
- Vaucher, *C.*, [printing of] green discharges on [indigo-] blue ground, B., 49.
- Vaudet, *G.*, spark spectra of chlorine and of bromine in the Schumann region, A., 99.
- Vaughan, *V. G.*, and Westinghouse Electric & Manufacturing Co., thermostatic material, (P.), B., 715.
- Vaughn, *L. E.* See Marvel, *C. S.*
- Vaughn, *W. E.* See Parmele, *H. B.*
- Vaurabourg. See Cheveneau, *C.*
- Vautin, *C. T. J.*, and Stephens, *C. V.*, manufacture of organic tin compounds, (P.), B., 731.
- Vavilov, *S. J.*, extinction of photoluminescence in uranyl salt solutions, A., 1072.
- Vavilov, *S. J.*, and Levschin, *V. L.*, "phosphorescing" liquid, A., 686.
- photoluminescence of uranium salts, A., 814.
- Vavon, *G.*, hydrogenation of substances with conjugated double linkings, A., 150.
- Vavon, *G.*, and Anziani, *P.*, *cis-trans*-isomerism and steric hindrance. VI. 2-Propylcyclohexanols, A., 166.
- Vavon, *G.*, and Apchié, *A.*, *cis-trans*-isomerism and steric hindrance. VII. 2-isoPropylcyclopentanols, A., 1000.
- Vavon, *G.*, and Krajeinovic, *M.*, catalytic hydrogenation of oximes and their transformation into β -hydroxylamines, A., 398, 870*.
- hydrogenation of nitrobenzene by platinum-black, A., 1125.
- Vavon, *G.*, and Mitchovitch, *V. M.*, 2-cyclohexylcyclohexanol, A., 516.
- Vavon, *G.*, and Zaharia, *N.*, extraction of phenols from alkaline solution with ether, A., 1130.
- Vavrinecz, *G.*, crystallography of sucrose, A., 110.
- Vaymarchar, *J.* See Goldstein, *H.*
- Vazcane Process, Inc. See Vazquez, *E. A.*
- Vazquez, *E. A.*, and Vazcane Process, Inc., simultaneously making sugar and paper pulp from [sugar] cane, (P.), B., 940.
- Veazey, *W. R.*, and Dow Chemical Co., manufacture of a magnesium alloy, (P.), B., 337.
- method of pulverising and alloying nickel, (P.), B., 758.
- manufacture of magnesium[chromium] alloy, (P.), B., 863.
- Vecchiotti, *L.*, position occupied by acetatomercuric (Hg-OAc) groups in anilines having in the nucleus a halogen group or a hydrocarbon residue. II. and III., A., 655, 783.
- action of mercuric acetate on *o*-bromoaniline, A., 783.
- Vedder, *E. B.*, and Feliciano, *R. T.*, determining a satisfactory standard for beri-beri-preventing rices, B., 727.
- Vedenski, *N.* See Krajevski, *N. A.*
- Veedip, Ltd. See Sutton, *S. D.*
- Veen, *G. van der*, and De Beus, *G. J. P. H. A.*, preparation of a composition for coating substances [foods] liable to putrefaction, (P.), B., 501.
- Vegard, *L.*, and Esp, *E.*, crystal structure of the alums, A., 820.
- Vegard, *L.*, and Sollesnes, *K.*, structure of the isomorphic substances tetramethylammonium iodide, bromide, and chloride, A., 7.
- Végh, *F. V.* See Issekutz, *B. V. von.*
- Veihmeyer, *F. J.*, and Givan, *C. V.*, simple speed controller, especially adapted to the moisture-equivalent centrifuge [for soils], B., 619.
- Veihmeyer, *F. J.*, and Hendrickson, *A. H.*, soil-moisture conditions in relation to plant growth, B., 651.
- Veil, (*Mlle.*) *S.*, evolution of nickel sulphide and cobalt sulphide in contact with water, A., 225.
- yellow ferric hydroxide resulting from the controlled oxidation of ferrous sulphide in suspension, A., 468.
- Veitch, *F. P.*, Frey, *R. W.*, and Leinbach, *L. R.*, deterioration of bookbinding leather, B., 204.
- Vejcman, *A. E.* See Stadnikov, *G.*
- Velišek, *J.* See Babrovský, *J.*
- Vellenga, *S. J.* See Boruff, *C. S.*
- Vellinger, *E.*, potential of the saturated calomel electrode between 0° and 40°, A., 369.
- Velluz, *L.* See Leulier, *A.*, and Morel, *A.*
- Velsen, *W. von.*, influence of stimulants on the sprouting of potatoes, B., 421.
- Vendrell, *S.* See Staudinger, *H.*
- Vener, *R. A.* See Bach, *A. N.*
- Venkataramier, *M. P.*, influence of hydrogen and hydroxyl ions on colloidal systems, A., 475.
- Venkatesachar, *B.*, density of the vapour in the mercury arc and the relative intensities of the radiated spectral lines, with special reference to the forbidden line 2270, A., 100.
- density of a luminous gas and the emission of light by atoms in metastable states, A., 338.
- Venkateswaran, *S.*, Raman effect in highly viscous liquids, A., 1170.
- Raman effect in glycerol and glycerol-water mixtures, A., 1306.
- Venn, *H. J. P.*, and Edge, *V.*, interaction of cuprous chloride and chromates of potassium in sodium chloride solution, A., 1103.
- Venugopalan, *M.*, bleaching of lac, B., 456.
- Vénus-Danilova, (*Mme.*) *E.*, transformation of propionylmethylcarbinol into acetyl-methylcarbinol, A., 867.
- transformation of butyrylethylcarbinol into propionylpropylcarbinol, A., 867.
- isomerisation of dicyclohexylacetaldehyde to a ketone, A., 1244.
- Vénus-Danilova, (*Mme.*) *E.* See also Favorski, *A. E.*
- Venzke, *K. F. G.*, hydro-extractors and like centrifugal machines, (P.), B., 879.
- Vepritzka, *V. F.* See Miloslavsky, *N. M.*
- Verda, *A.*, Denigès' phospho-ceruleomolybdenum compound, A., 1104.
- Verdino, *A.*, micro-determination of mercury in organic compounds and the determination of carbon and hydrogen in such compounds, A., 386.
- Verein für Chemische Industrie Akt.-Ges., recovery of high-percentage acetic acid from solutions of acetylcellulose in acetic acid, (P.), B., 11.
- production of santalol derivatives, (P.), B., 36.
- production of derivatives of organic amino- or imino-compounds, (P.), B., 36.
- treatment of precipitated acetylcellulose, (P.), B., 228.
- Verein für Chemische Industrie Akt.-Ges., and Küchler, *E.*, producing or reactivating active carbon, (P.), B., 219.
- Verein für Chemische Industrie Akt.-Ges., and Löw, *E.*, continuous production of concentrated acetate liquor from acid vapours from the carbonisation of wood, (P.), B., 805.

- Verein für Chemische Industrie Akt.-Ges., and Walter, H., production of additive products of unsaturated hydrocarbons of the acetylene series, (P.), B., 440.
- Verein für Chemische Industrie Akt.-Ges. See also Moser, O., and Walter, H.
- Verein für Chemische & Metallurgische Produktion, decomposition of potassium magnesium bicarbonate, (P.), B., 51.
- preparation of refractory bodies, (P.), B., 265.
- manufacture of magnesium phosphate, (P.), B., 603, 815.
- manufacture of sulphuric anhydride and sulphuric acid, (P.), B., 710.
- eliminating the acidity of acid activated charcoal, (P.), B., 883.
- chlorination of saturated hydrocarbons with a graphite catalyst, (P.), B., 921.
- Verein Deutsche Eisenhüttenleute. See Siemens & Halske A.-G.
- Vereinigte Glanzstoff-Fabr., Akt.-Ges., manufacture of fine viscose filaments, (P.), B., 187.
- Vereinigte Schweizerische Rheinsalinen, salt or evaporating pans, (P.), B., 144.
- Vereinigte Stahlwerke Akt.-Ges., improving the tensile qualities of drawn steel wire, (P.), B., 820.
- Vereinigte Stahlwerke Akt.-Ges., and Hülsbruch, W., alloy steel for use as a building material, (P.), B., 644.
- Vereinigte Stahlwerke Akt.-Ges. See also Schenck, R.
- Vergues, J. See Campardou, J.
- Verhaeghe, J., arc spectrum of Kasolo uraninite, A., 570.
- Verkade, P. E., and Coops, J., jun., calorimetric researches. XIV. Heats of combustion of successive members of homologous series: the normal primary aliphatic alcohols, A., 133.
- refractivity of normal saturated monobasic aliphatic acids, A., 220, 460.
- accuracy of Stohmann's thermochemical data, A., 712.
- ratio of the heats of combustion of benzoic acid and salicylic acid, A., 845.
- Swientoslawski's method for the correction of the older thermochemical data, A., 845.
- Verley, A., determination of alcohols, A., 615.
- citronellal and rhodinal, A., 1138.
- rearrangement of ozonides, A., 1139.
- Vernay, J. B., filtering apparatus, (P.), B., 288*.
- rotary drying apparatus, (P.), B., 430, 734*.
- Vernay, V., and Societa Italiana Elettrochimica, production of aluminium in electric furnaces, (P.), B., 527.
- Vernet, W. See Iserman, S.
- Verney, E. B., apparatus for the determination, in small volumes of fluid, of the osmotic pressure of colloids, A., 501.
- Vernon, W. H. J., and Whitty, L., determination of small quantities of carbonate in presence of excess of sulphide and chloride, with particular reference to the analysis of metallic corrosion products, B., 856.
- Verschaffelt, J. E., heat of vaporisation at absolute zero, A., 1187.
- Verschaffelt, J. E., and Castele, E. van de, Hartmann and Braun's spring balance, A., 986.
- Verschuur, R., variation in rotation and conductivity of sugars in aqueous solution with and without boric acid. I. and II., A., 233, 509.
- Verweel, H. J. See Frederikse, W. A.
- Verweg, E. J. W., polar conception of co-ordinated valencies, A., 936.
- Verwey, E. See Aten, A. H. W.
- Vesely, V. See Ulrich, F.
- Vesselkina, V. M., metabolism after extirpation of [dog's] liver, A., 443.
- Vesterberg, K. A., and Vesterberg, R., betulin. I., A., 1016.
- Vesterberg, R., betulin. II., A., 1016.
- Vesterberg, R. See also Vesterberg, K. A.
- Vesuvius Crucible Co. See Jackman, A. J.
- Veszi, G. See Tammann, G.
- Vetter, J. J. See Rosinger, A.
- Vianello, A., dioximes. XLIX., A., 1030.
- Vickers, Ltd., T. & T., and Crosland, E. W., [machines for] the manufacture of biscuits, etc., (P.), B., 464.
- Vicente, M. L. A., and West, A. P., esters of α -linolenic acid hexabromide from Philippine lumbang oil, A., 1115.
- Vichnitch, M. See Chahovitch, Y.
- Vickers, A. E. J., influence of oxidising and reducing atmospheres on refractory materials. II. Experiments with a cone mixture containing added amounts of pure ferric oxide, B., 570.
- determination of iron in silicates, B., 816.
- Vickers, Ltd., and Lucas, O. D., preparations of fibrous vegetable materials for textile and other purposes, (P.), B., 227.
- treatment of flax and similar fibrous materials, (P.), B., 889.
- Vickers, Ltd., and Parker, L. D., grinding mills, (P.), B., 216.
- rotary kilns for burning cement, ore, and similar materials, (P.), B., 248.
- Vickers, Ltd. See also Potts, C. H.
- Vickery, H. B., and Leavenworth, C. S., crystallisation of lysine, A., 400.
- crystallisation of arginine and histidine, A., 511.
- modified determination of basic amino-acids; bases of edestin, A., 511.
- separation of histidine and arginine. IV. Preparation of histidine, A., 1121.
- basic amino-acids of horse haemoglobin, A., 1390.
- Victorov, P. P., influence of anions of mordants on the shade of alizarin red lake, B., 811.
- Vidal, R., bleaching of vegetable fibres, (P.), B., 189.
- preparation of [sulphide] black colouring materials, (P.), B., 924.
- Viditz, F. See Hölzl, F.
- Vidyardhi, N. L. See Hilditch, T. P.
- Viehl, K. See Brünig, H.
- Vieille, P., influence of coefficient of exchange on ease of saturation of guncotton. I. and II., B., 108.
- effect of temperature on efficiency of washing a guncotton, B., 108.
- purification of guncotton, B., 108.
- Viel, E., preparation of double compounds of alkaloids or amines with antimony or arsenic tri-iodide, (P.), B., 624.
- Vierling, K. See I. G. Farbenind. A.-G.
- Vietti, W. V. A. See Randall, M.
- Vieweger, T., chemical composition of eels subjected to inanition, A., 1050.
- Vigfusson, V. A. See Thorvaldson, T.
- Vigreux, G., and Société Anonyme des Anciens Établissements Gépéa, gas purifier, (P.), B., 918.
- Vila, A., and Ancelle, R., differentiation of the proteins of blood-serum, A., 83.
- Vilbrandt, F. C. See Bass, L. A., and Smith, A. R.
- Vilenko, E. A. See Miloslavsky, N. M.
- Villa, L., behaviour of d'Herelle's lytic principle (bacteriophage) towards collodion membranes and in distilled water, A., 874.
- Villa, L. See also Orsi, A.
- Villard, P., law of absorption of X-rays by matter, A., 101.
- chemical actions of radiation, A., 851; B., 349.
- Villars, D. S., degree of association of sodium vapour, A., 1165.
- Villey, J. See Aubert, M.
- Vinal, G. W., and Snyder, C. L., effect of temperature and other factors on the performance of storage batteries, B., 414.
- Vinassa de Regny, P., atomic number and terrestrial distribution, A., 267.
- symmetry of electrons [in atoms], A., 349.
- molecular numbers, A., 690.
- geochemical inertia of the elements of the triads, A., 730.
- electrons and symmetry, A., 1178.
- electronic symmetry and polyatomic molecules, A., 1310.
- Vinaver, S. See Turski, J. S.
- Vincent, H., non-colloidal cryptotoxic substances, A., 674.
- Vines, H. C. W., action of suprarenal tissue on lecithin, A., 202.
- replacement of the serum-calcium and thyroid gland in rabbits after intravenous injections of oxalate, A., 438.
- Vinet, E. See Moreau, L.
- Vinogradov, A., and Improved Office Partition Co., production of fire-resistant fibrous materials, (P.), B., 125.
- Vinogradov, A., and Inecto, Inc., dyeing of fur, (P.), B., 365.
- dyeing of fibres, (P.), B., 708.
- Vinogradov, A., and Vinogradova, V. I., utilisation of brass scrap in the manufacture of copper sulphate, B., 891.
- Vinogradova, I. V. See Rutovskii, B. N., and Vinogradov, A.
- Vinogradov-Volzynski, I. A. See Lebedev, S. V.
- Vinogradski, S., oxidation of cellulose in the soil, B., 742.
- Vinogradski, S., and Ziemienska, J., soil microbiology. III. Fixative power of soil, B., 239.
- Viohl, R., evolution of heat in the condensation of electrons on metals, A., 1302.
- Virden, C. J. See Gulland, J. M.
- Virely, P. P. See Hurez, E.
- Virginia-Carolina Chemical Corporation. See Maxwell J.

- Virtanen, A. I., formation of succinic acid by fermentation of sugars by *B. coli*, A., 204.
effect of soil acidity on the growth and composition of leguminous plants, A., 558.
- Virtanen, A. I. [with Pulkki, L.], determination of butyric and caproic acids in butter fat, B., 688.
- Virtanen, A. I., and Karström, H., lactic acid fermentation. V., A., 797.
- Virtanen, A. I., and Pulkki, L., distillation of water-soluble organic compounds in a current of steam, A., 243.
- Virtanen, A. I., and Winter, A. O., quantitative enzyme measurements with micro-organisms. II. Effect of some factors on the catalase content of bacteria, A., 1285.
- Visco, S., relation between viscosity and electrolytic dissociation of colloidal solutions. I. Behaviour of gelatin hydrosols before and after treatment with proteolytic substances, A., 124.
physico-chemical changes in egg-albumin hydrosols caused by latex. I.—III., A., 364.
- Viscose Development Co., Ltd. See Cross, C. F.
- Visintainer, F., alloy, (P.), B., 757.
- Vita, N. See Padoa, M.
- Vitamin Food Co., Inc., vitamin food products, (P.), B., 728.
- Viterbi, E., and Krausz, G., absorption spectra of chromic acid, potassium chromate and dichromate in aqueous solution, A., 5.
- Vitoux, E., use of starch for characterisation of margarine, B., 872.
- Vitretrax Co., manufacture of refractory compositions, (P.), B., 484.
- Vitretrax Co., and Curtis, T. S., clay product, ceramic composition, and associated processes, (P.), B., 672.
- Vitro Manufacturing Co. See Huber, H. V.
- Vivaro, R., methyl alcohol in spirits and tinctures, B., 240.
- Vivatex Processes, Inc. See White, C. B.
- Vladesco, R., determination of uric acid in biological fluids, A., 928.
- Vlassenko, B., manufacture of "contact substance" [from petroleum distillates], B., 592.
- Vlès, F., and Gex, (Mlle.) M., optical properties of sulphone-cyanine-5R in different saline solutions, A., 14.
- Vlès, F., Reiss, P., and Gex, (Mlle.) M., colouring matters operating in the presence of neutral salts, and the construction of a scale of indicators with varying mass indices for the comparison of saline solutions, A., 36.
- Vliet, E. B., and Abbott Laboratories, diallylcyanamide, (P.), B., 389.
- Vlodavtza, N. I. See Urazov, G. G.
- Vlostovska, V. See Smolešnik, K.
- Vlugt, L. S. van der, colorimetric determination of iodine in artificial light, A., 497.
colorimetric determination of iron by means of potassium thiocyanate, A., 1108.
nephelometric determination of small quantities of lead in presence of zinc by means of potassium chromate, B., 336.
- Vobach, A. C. See Isom, E. W.
- Vocke, F. See Wieland, H.
- Vocos, C. M. See Sayago, G.
- Vodret, F. L., essential oil of *Myrtus communis*, L., B., 913.
- Voegtlin, C. See Johnson, J. M.
- Voellmy, H., apparatus for determining refraction and dispersion, (P.), B., 698.
- Völtz, W., and Kirsch, W., detection of the antirachitic factor in grass grown in the dark on an artificial nutritive solution. II., A., 556.
- Vogel, H., synthesis and polymerisation of formaldehyde, A., 503.
rhamnosan, A., 620.
- Vogel, H., and Debowska-Kurnicka, H., new sugars of trehalose type, A., 1224.
- Vogel, H., and Pictet, A., depolymerisation of inulin, A., 276.
synthesis of raffinose, A., 1224.
- Vogel, H. See also Pictet, A.
- Vogel, I., equivalent conductivity of strong electrolytes at infinite dilution. II. Methyl-alcoholic solutions; effect of temperature on the constants in the equation $\Lambda_0 = A + BC^n$, A., 244.
synthesis of cyclic compounds. II. Ethyl α - and β -diphenylbutane- $\alpha\alpha\delta\delta$ -tetracarboxylates; synthesis of a truxinic acid, A., 640.
synthesis of cyclic compounds. III. Reduction of some unsaturated cyano-esters by moist aluminium amalgam; new synthesis of $\beta\beta\beta'\beta'$ -tetramethyladipic acid; further evidence for the multipolar configuration of the cycloheptane ring, A., 1116.
- Vogel, I., synthesis of cyclic compounds. IV. Catalytic decomposition of suberic acid and preparation of suberone directly from mixtures of suberic and azelaic acids, A., 1135.
- Vogel, O., pickling of iron, etc., (P.), B., 756.
- Vogel-Jorgensen, M., producing homogeneous mixtures of pulverulent materials, (P.), B., 878.
- Vogl, H. See Ohle, H.
- Vogler, H. J., and Clark, W., latent image and development, B., 37.
- Voglsamer, P., apparatus for mixing liquids and solids such as concrete or mortar, (P.), B., 571.
- Vogt, A. See Goldschmidt, S.
- Vogt, E., hormonal sterilisation of female animals with insulin, A., 1404.
- Vogt, E., and Kirchhof, L., feeding devices for coal pulverising mills, (P.), B., 739.
- Vogt, Eckhart, colour and colour equilibria of phenolphthalein and its derivatives, A., 346.
widening of spectral lines by the thickness of the vapour of the absorbing atoms, A., 1067.
- Vogt, M. See Neuberg, C.
- Vogt, W. W., value of the rubber hydrocarbon in reclaimed rubber, B., 238.
typical-angle abrasion machine [for rubber], B., 309.
- Vogt, W. W. See also Dinsmore, R. P.
- Vohl & Co., Akt.-Ges., A., purification of solutions of zinc salts, (P.), B., 124.
- Vohsen, E. See Simon, F.
- Voien, I., Ciurea's modification of Denigès' method for the micro-determination of phosphorus, A., 979.
- Voicu, O. See Spacu, G., and Stanicu, V.
- Voigt, J., protected silver hydrosols. VI. Sol formation by irradiation, A., 1090.
- Voigt, J., and Heumann, J., preparation of silver hydrosols free from protective colloids and with particles of a uniform size. II. and III., A., 359.
- Voisin, U. B. See Roche, E. M.
- Voit, E., acid fixation and swelling of fibrin. I., A., 706.
- Volborth, A. von. See Anschütz, R.
- Volkamer, W. See Lüers, H.
- Volkov, P. A., equilibrium of solutions of barium and lead chlorides dissolved in aqueous hydrochloric acid, A., 830.
- Volkringer, H., continuous and band spectra of zinc vapour, A., 806.
- Vollkommer, T. J., molting of enamels, frits, and glazes, (P.), B., 524.
- Vollmann, C. W., refrigerating system, (P.), B., 659.
- Volmar, Y., and Jernstad, A., sclareol, the principal constituent of essence of sage (*Salvia sclarea*), A., 524, 999*.
absolute essence of *Salvia sclarea*, B., 284, 465*.
- Volmar, Y., and Samdahl, B., chemistry of kirondro fruit. I. and II., A., 334.
determination of oleic and linoleic acids in an oil; determination of the bromine index, B., 236.
- Volqvartz, K. See Brönsted, J. N.
- Voltz, T., and Durand & Huguenin Société Anonyme, manufacture of chlorinated amines from chlorinated hydroaromatic ketimino-compounds [chloroketimides], (P.), B., 398*.
manufacture of chlorinated hydroaromatic products containing nitrogen, (P.), B., 740*.
- Volwiler, E. H. See Adams, R.
- Vondráček, V., glycerophosphatase of the central nervous system; glycerophosphatase in men and animals, A., 194.
- Vondrák, J., volumetric determination of magnesium, B., 94.
examination of raw sugars, using a single solution, B., 540.
- Vondrák, J. See also Staněk, V.
- Vontobel, H., washing of clothes, (P.), B., 154.
- Voogd, J. See De Haas, W. J.
- Voogd, N. H. J. M. See Korveze, (Miss) A. E.
- Voorhees, V. See Adams, R.
- Voorst, F. T. van, adipic acid as a standard in alkalimetry, A., 262.
- Vorländer, D., absorption spectra of liquid crystals, A., 1304.
- Voronkov, G. P., and Pokrovski, G. I., optical examination of substances with powder- or thread-like structure, A., 705.
- Voronov, A., application of Grosny paraffin mazout, mixed with creosote, to the preservation of wood, B., 606.
kerosenes from Grosny crude oil, B., 630.
- Voronov, B. E., extraction of high-quality cylinder oils from lubricating oil residue, B., 661.
- Vosburgh, W. C., lead-mercurous iodide cell, A., 1192.

- Voskressenski, *A.* See Bierry, *H.*
 Voskressenski, *N. K.*, equilibrium of the system potassium oxalate-water, *A.*, 130.
 determination of the salinity of soils from the electrical conductivity of their aqueous extracts, *B.*, 101.
 Vosnessenski, *N.*, discharging indigo-dyed fabric by means of nitric acid; (a) action of certain catalysts; (b) discharges with flavanthrene and thioindigo red B; (c) discharges with nitroso- β -naphthol, *B.*, 478.
 yellow and orange chromate discharges on indigo, *B.*, 890.
 brown chromate discharges on indigo, *B.*, 890.
 Vosnessenski, *S. A.*, sulphur nitride. II., *A.*, 1343.
 Vosnessenski, *S. A.*, and Stratonova, *T. A.*, acid properties of concentrated solutions of zinc chloride, *A.*, 947.
 Voss, *A.* See I. G. Farbenind. A.-G.
 Voss, *V.* See Wood, *R. W.*
 Voss, *W. A.* See Hollings, *H.*
 Vosschinskaja, *Z.* See Stadnikov, *G.*
 Vossen, *B.*, and Grasselli Dyestuff Corporation, dyeing leather with azo-dyes, (P.), *B.*, 926*.
 Vossen, *B.* See also Wagner, *Hermann.*
 Votoček, *E.*, and Beneš, *L.*, oxidation of $\alpha\beta\gamma\delta$ -tetrahydroxyhexoic acids by nitrous acid, and the reduction products of δ -ketorhamnolactone, *A.*, 1356.
 Votoček, *E.*, and Lukeš, *R.*, 2:3-, 2:5-, 2:6-, and 3:5-dibromophenylhydrazines, *p*-bromophenylmethylhydrazine and their derivatives with aldehydes and ketones, *A.*, 886.
 Votoček, *E.*, and Mikšič, *J.*, epirhamnitrol, reduction product of epirhamnose, *A.*, 399.
 Votoček, *E.*, and Valentin, *F.*, isorhodeitol, reduction product of isorhodeose, *A.*, 399.
 Vrabely, (*Frl.*) *V.* See Zechmeister, *L.*
 Vranjican, *D.* See Plotnikov, *J.*
 Vreeland, *C. D.*, sulphur fungicide and insecticide, (P.), *B.*, 344.
 Vreeland, *G. W.*, [blast-furnace] tuyère, (P.), *B.*, 820.
 Vrevski, *M. S.*, determination of mol. wt. of saturated vapours of pure liquids and their mixtures by the displacement method, *A.*, 18, 695*.
 Vrevski, *M. S.*, and Glagoleva, *A.*, dissociation of the vapour of formic acid and the equilibrium between a solution of formic acid and its vapour, *A.*, 18, 592*.
 Vrevski, *M. S.*, Held, *N. A.*, and Schukarev, *S. A.*, equilibrium between solutions of formic acid in benzene and the vapour phase, *A.*, 19, 592*.
 Vrevski, *M. S.*, Mischtschenko, *K.*, and Mouromtsev, *B.*, dissociation of acetic acid vapour and the equilibrium between a solution of acetic acid and its vapour, *A.*, 18, 592*.
 Vrkljan, *V. S.*, connexion between the coefficient of expansion and the coefficient of compressibility of liquids, *A.*, 578.
 Vuishetravski, *S.*, changes in construction of modern stills, *B.*, 657.
 Vulcan Mold & Iron Co. See Williams, *E. R.*
 Vultex, Ltd. See Schidrowitz, *P.*
 Vyas, *N. D.*, increasing the manurial value of mahua cake, *B.*, 830.
- Wacker Gesellschaft für Elektrochemische Industrie G.m.b.H., *A.*, Basel, *G.*, and Kauffer, *F.*, increasing the wetting capacity of solutions, (P.), *B.*, 189.
 Wada, *I.*, and Saito, *S.*, influence of cobalt on determination of manganese in steel, *B.*, 930.
 Wadadekar, *G. M.* See King, *P. E.*
 Waddell, *J.* See Hart, *E. B.*
 Wadehn, *F.* See Glimm, *E.*
 Wadi, *W.*, pharmacology of the iodine ion, *A.*, 549.
 Wadleigh, *W. H.* See Geller, *R. F.*
 Wadsworth, *W. H.* See Bailey, *J.*
 Wadsworth Watch Case Co. See Beebe, *M. C.*
 Waegeningh, *J. E. H. van*, and Heesterman, *J. E.*, determination of age of eggs by means of ultra-violet fluorescence, *B.*, 138.
 Waehner, *R.* See Engelhardt, *W. A.*
 Waentig, *P.*, behaviour of lignin and chlorolignin in the preparation of wood pulp by means of chlorine. I. and II., *B.*, 476, 742, 782.
 action of strong sodium hydroxide on cellulose, *B.*, 564.
 Waerden, *H. van der*, water-penetration of sole leather, *B.*, 828.
 Waeser, *B.*, alloys resistant to hydrochloric acid, *B.*, 159.
 hydrochloric acid absorption, its mechanism and the apparatus necessary, *B.*, 261.
 use of aluminium, steels, VA alloys, and silicon alloys in the nitric acid industry, *B.*, 818.
 Wagemann, *A.*, production of refractory materials, (P.), *B.*, 895.
 Wagenaar, *M.*, microchemical reactions of atropine, *A.*, 532.
 microchemical reactions of hyoscyamine, *A.*, 1030.
 detection and determination of rice flour in other flours and in spices, *B.*, 384.
 Waggener, *R. A.* See Dye, *J. A.*
 Wagler, *K.* See Hein, *F.*
 Wagner, *A.* See Gutehoffnungshütte Oberhauser A.-G.
 Wagner, *Alfred*, nonaldehyde from the tetradecenoic acid from sperm oil, *A.*, 274.
 anthranilic esters, *B.*, 106.
 production of vanillin from safrole, *B.*, 439.
 manufacture of vanillin, *B.*, 664.
 Wagner, *Alois*, electrolytic transport of water in solutions of hydrochloric and hydrobromic acids, *A.*, 135.
 Wagner, *Alois*. See also Baborovský, *J.*
 Wagner, *A. M.* See Brier, *J. C.*
 Wagner, *C.*, detection of intermediate products in oxidations with chromic acid, *A.*, 260.
 effect of a third substance on the miscibility of binary liquid systems, *A.*, 579.
 Wagner, *C.*, and Preiss, *W.*, induction of the reaction between chromic acid and iodide by ferrous salts, *A.*, 260.
 Wagner, *C.* See also Täufel, *K.*
 Wagner, *C. R.*, refining of oils, (P.), *B.*, 472.
 Wagner, *E.*, funnels or thread guides for use in the manufacture of threads of artificial silk and the like, (P.), *B.*, 600.
 Wagner, *Ernst*, and Ott, *P.*, polarisation of spectral X-rays, *A.*, 339.
 Wagner, *E. C.*, chlorine dioxide explosions, *A.*, 616.
 Wagner, *F. H.*, and Bartlett Hayward Co., liquid and gas contact apparatus, (P.), *B.*, 467.
 Wagner, *F. H., jun.* See Silica Gel Corp.
 Wagner, *G.* See Grimm, *H. G.*
 Wagner, *H.*, removal of oxide films from metal surfaces, (P.), *B.*, 610.
 Wagner, *Hans*, and Kesselring, *J.*, solubility of lake pigments in cellulose varnishes, *B.*, 60.
 microscopy of body colours, *B.*, 680.
 Wagner, *Hans*. See also Braun, *J. von.*
 Wagner, *Hermann*, Eichwede, *H.*, Fischer, *Erich*, and Grasselli Dyestuff Corporation, dyeing mixed textile goods, (P.), *B.*, 669*.
 Wagner, *Hermann*, Funke, *A.*, and Grasselli Dyestuff Corporation, manufacture of a greenish-yellow azo-dye, (P.), *B.*, 46*.
 Wagner, *Hermann*, Sohst, *O.*, and Grasselli Dyestuff Corporation, manufacture of azo-dyes, (P.), *B.*, 741*.
 Wagner, *Hermann*, Vossen, *B.*, and Grasselli Dyestuff Corporation, 1-methyl-2:5:6-trichloro-3-aminobenzene-4-sulphonic acid, (P.), *B.*, 634*.
 Wagner, *J.*, production of hydrated iron oxide from iron metal, (P.), *B.*, 403.
 Wagner, *J.*, cleansing agent for fire-arms, (P.), *B.*, 875.

- Wagner, *Joachim*, determination of acetaldehyde by different methods, A., 619.
- Wagner, *Joachim*. See also Kubelka, V., and Neuberg, C.
- Wagner, O. See Hepner, J.
- Wagner, O. H., refractive indices of some molten salts, A., 347.
- Wagner, R. See Fleming, W. E.
- Wagner, T. See Remy, H.
- Wagner, T. B., yeast stimulants and process of using them, (P.), B., 766.
- Wagner, T. B., and Glabau, C. A., production of leavened dough products, (P.), B., 34*.
- Wagner-Jauregg, T., rotatory dispersion of sugars, A., 1220.
- Wagner-Jauregg, T. See also Kahn, R.
- Wagstaff, J. See Whitehead & Poole, Ltd.
- Wahl, A., action of aromatic sulphonyl chlorides on tertiary bases, A., 996.
- Wahl, A., and Féricean, G., derivatives of isoindigotin, A., 428.
- chloroisoindigotins, A., 1025.
- Wahl, A., Lantz, R., and Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis, preparation of new derivatives of naphthaquinone, (P.), B., 183*.
- Wahl, A., and Lobeck, reaction of disulphoisatides, A., 771.
- Wahl, A., and Rolland, J., chlorobenzoylacetate esters, A., 289.
- chlorobenzoylacetate esters and their derivatives, A., 1133.
- Wahl, A., and Sisley, J. P., elementary organic analysis, A., 909.
- Wahl, A. See also Lantz, R.
- Wahl, W., isomorphous replacement of silicon by aluminium, A., 267.
- constitution of the silicates, A., 350.
- constitution of aluminosilicates, conditions of their formation, and transformation in soil, A., 350.
- optically active copper compounds, A., 395, 1077.
- Wahlin, H. B., critical potentials of metallic vapours. I. Copper, A., 1068.
- Wait, J. F., method of filtering, (P.), B., 431.
- Wakefield & Co., Ltd., C. C. See Evans, E. A.
- Wakerlin, G. E., and Loevenhart, A. S., prophylactic and sterilising properties of organic arsenicals and mercurials in syphilis, A., 1279.
- therapeutic action of organic mercurials in syphilis, A., 1279.
- Wakhrouchev, N., production of soft, tough leather dyed in coloured patterns, (P.), B., 829.
- Waksman, S. A., and Dnbos, R. J., organisms which decompose cellulose in arable land, B., 102.
- Waksman, S. A., and Stevens, K. R., chemical constitution of peat. I. Chemical nature of organic complexes in peat and methods of analysis, B., 880.
- Waksman, S. A., and Tenney, F. G., composition of natural organic materials and their decomposition in soil. II. Influence of age of plant on rapidity and nature of its decomposition, B., 62.
- Walbaum, H., and Rosenthal, A., odoriferous principle of castor-oil, B., 139.
- Walbert, H. See Emmel, K.
- Walde, H., boiler scale and its prevention, B., 351.
- Walden, G. H., jun. See Beans, H. T.
- Walden, P., di-, tri-, and tetra-chloroethylene as solvents in ebullioscopy, A., 230.
- Walden, P., and Ulich, H., first dissociation constants of *s*-di-phenylguanidine and *p*-phenylenediamine, A., 478.
- Walden, P., Ulich, H., and Birr, E. J., specific volumes of low-melting picrates, A., 107.
- salts with low m. p. II, III, and IV. Electrical conductivity, viscosity, and molecular state of fused picrates, A., 112.
- Walden, P., Werner, O., and Ulich, H., dielectric constants of solutions of electrolytes. IV. Investigation of acids, salts, and bases in water. V. Measurements with sucrose, carbamide, benzoic and sulphonic acids, betaine, and alanine in aqueous solution. VI. Test of the experimental basis of the method of measurement, A., 14.
- Waldorf, I. See Leuchs, H.
- Waldron, L. J. See Publow, H. L.
- Waldschmidt-Graser, J. See Willstätter, R.
- Waldschmidt-Leitz, E., biological evaluation of food preparations, B., 105.
- Waldschmidt-Leitz, E., and Klein, W., specificity of animal proteases. XIII. Specificity and mode of action of erepsin, trypsin, and trypsin kinase, A., 673.
- Waldschmidt-Leitz, E., Klein, W., and Schöffner, A., specificity of animal proteases. XIV. Structural requirements of the specific fission of proteolytic substrates; specificity of trypsin, trypsin kinase, and intestinal erepsin, A., 1401.
- Waldschmidt-Leitz, E., and Künstner, G., fractional enzymic hydrolysis of histone, A., 550.
- specificity of animal proteases. XI. Pepsin, A., 550.
- Waldschmidt-Leitz, E., and Rauchalles, G., specificity of peptidases. II. Comparison of the peptide-sugar condensation with the mode of action of erepsin, A., 672.
- Waldschmidt-Leitz, E., Schöffner, A., Schlatter, H., and Klein, W., specificity of animal proteases. XII. Specificity of pancreatic trypsin and intestinal erepsin, A., 446.
- Waldschmidt-Leitz, E., and Shinoda, O., specificity of animal proteases. XIV. Comparison of activating power of entero-kinase from different sources, A., 922.
- Walerstein, I. See McLennan, J. C.
- Wales, H., yeast method for silver proteins, B., 767.
- Walker, C. E., artefacts as a guide to the chemistry of the cell, A., 1152.
- Walker, C. L., nozzles for use in the production of artificial [silk] filaments, (P.), B., 296.
- Walker, C. P., centrifugal mills for the grinding, mixing, emulsification, and incorporation of solids and liquids, or liquids, (P.), B., 627.
- Walker, E., chemical constitution and toxicity, A., 327.
- Walker E. E. See British Dyestuffs Corp., Ltd.
- Walker, F. W. See Berry, E.
- Walker, G. K. See Judd, D. B.
- Walker, H. W., wood preservation, (P.), B., 485.
- preparation of a special light sodium silosilicate and its use as a boll-weevil poison, B., 651.
- preparation of special calcium arsenates containing less than 40% As (as pentoxide), and their use as boll-weevil poisons, B., 651.
- Walker, L. J. See Markwell, W. A. N.
- Walker, L. P. See Smith, C. F.
- Walker, (Miss) N. See McKenzie, A.
- Walker, O. J., decomposition of acetyl peroxide and the mechanism of Kolbe's electro-synthesis, A., 1114.
- Walker, P. H., and Hickson, E. F., accelerated tests of organic protective coatings, B., 678.
- unreliability of visual inspection of exposure tests of paints, B., 865.
- Walker, T. C., effect of fine grinding on an indurated clay, B., 53.
- Walker, T. K., determination of antiseptic power of hops, B., 207.
- Walker, T. K., and Coppock, P. D., mechanism of the degradation of fatty acids by mould fungi. I., A., 804.
- Walker, T. K., Subramaniam, V., and Challenger, F., mechanism of the formation of citric and oxalic acids from sugars by *Aspergillus niger*. II., A., 155.
- Walker, T. K. See also Challenger, F., Coppock, P. D., and Hastings, J. J. H.
- Walker, T. L., louisite, A., 864.
- Walker, T. L., and Parsons, A. L., bytownite and huronite, A., 864.
- tremolite, clinohumite, stromeyerite, natron, and hexahydrate, A., 864.
- Wall, C. L. See Gaunt, R.
- Wallace, E. L. See Bowker, R. C.
- Wallace, G. I., and Neave, S. L., nitrite test as applied to bacterial cultures, A., 1056.
- Wallace, G. W., and Ihrig, H. K., distillation of oil, (P.), B., 81.
- Wallace, H. R., production of intumescences in transparent apple by gaseous ethylene as affected by external and internal conditions, B., 538.
- Wallace, T., effects of manurial treatments on the chemical composition of gooseberry bushes. I. Effects on dry matter, ash, and ash constituents of leaves and stems of terminal shoots and of fruits, and on total nitrogen of fruits, B., 683.
- Wallace, W. M., and MacGregor, J., recovery of soda from its solutions [used in treatment of esparto, etc.], (P.), B., 85.
- Wallace, W. S. See Peale, R.
- Wallach, O., conversion of oximes of *o*-diketones into pyrazines, A., 1381.
- Walle, M. van der, synthetic action of bacterial lipases, A., 328.
- Waller, C. C., production of coated metal articles, e.g., stereotype plates, (P.), B., 899.

- Waller, *I.*, scattering of radiation from atoms, *A.*, 4.
 generalisation of the Kramers-Heisenberg dispersion formula for short waves in the multi-electron problem, *A.*, 933.
- Waller, *I.*, and James, *R. W.*, temperature factors of X-ray reflexion for sodium and chlorine in the rock-salt crystal, *A.*, 112.
 is crystal reflexion of X-rays entirely a classical phenomenon? *A.*, 939.
- Waller, *I.* See also James, *R. W.*
- Wallerstein, *L.*, and Wallerstein Co., Inc., beverage extracts; alcohol-reduced cereal beverages rich in proteins, (*P.*), *B.*, 728.
- Wallerstein Co., Inc. See Wallerstein, *L.*
- Wallin, *H.*, production of cellulose and other chemical products, (*P.*), *B.*, 364.
- Walling, *E.* See Hahn, *O.*
- Wallis, *R. P.* See Weyman, (*Mrs.*) *E. M.*
- Wallis, *T. E.* See Evans, *J.*
- Wallmann, *C.*, preparation and properties of silicon steel, *B.*, 572.
- Wallrahe, *G.*, detection of arsenic in [medicinal] iron preparations by means of hypophosphite, *B.*, 172.
- Wallsom, *H. E.*, sodium thiopyrophosphates, *A.*, 380.
- Wallsom, *H. E.* See also Partington, *J. R.*
- Wallwork, *J. A.* See Leitch & Co., Ltd., *J. W.*
- Walmsley, *H. P.*, structure of smoke particles from a cadmium arc, *A.*, 224.
 oscillatory ionisation currents from clouds of cadmium oxide particles, *A.*, 454.
- Walmsley, *H. P.* See also Nugent, *T. C.*
- Walsh, *G.* See Mason, *H. M.*
- Walsh, *J. W. T.*, artificial daylight, *A.*, 501.
- Walsh, *V. G.*, drying of leather, hides, skins, etc., (*P.*), *B.*, 134.
 drying of leather, (*P.*), *B.*, 795.
- Walter, *B. C. van B.* See Schreinemakers, *F. A. H.*
- Walter, *C. A.*, and Mühlenberg, *F. B.*, fuel for internal-combustion engines and motors, (*P.*), *B.*, 471.
- Walter, *E.* See Reindel, *F.*
- Walter, *G.*, manufacture of methylolureas [hydroxymethylcarbamides], (*P.*), *B.*, 598.
 methylol [hydroxymethyl] compounds of amides, (*P.*), *B.*, 598.
 production of varnish bases and masses insoluble in water, (*P.*), *B.*, 614.
- Walter, *H.*, and Verein für Chemische Industrie Akt.-Ges., manufacture of additive compounds of unsaturated hydrocarbons, (*P.*), *B.*, 441*.
- Walter, *H.* See also Verein für Chem. Ind. A.-G.
- Walter, *J. M.*, and Barratt, *S.*, intermetallic compounds in the vapour state; the spectra of the alkali metals, and of their alloys with each other, *A.*, 812.
 spectra of intermetallic compounds, *A.*, 1307.
- Walter, *R.*, desulphurising of molten metal and briquettes used therefor, (*P.*), *B.*, 162*.
- Walters, *O. H.*, and Barratt, *S.*, alkaline-earth halide spectra and their origin, *A.*, 457.
- Walti, *A.* See Levene, *P. A.*
- Walton, *C. H. A.* See Cameron, *A. T.*
- Walton, *D. C.*, Kehr, *E. F.*, and Loevenhart, *A. S.*, comparison of the pharmacological action of diacetone alcohol and acetone, *A.*, 919.
- Walton, *E.* See Clemo, *G. R.*
- Walton, *J. H.*, and Finzel, *T. G.*, solubility of *m*-nitroaniline in water, *A.*, 700.
- Walton, *J. H.*, and Graham, *D. P.*, oxidation of some dicarboxylic acids by hydrogen peroxide in the presence of certain catalysts, *A.*, 848.
- Walton, *J. H.*, and Rosenbaum, *C. K.*, preparation of boric anhydride and its efficiency as a drying agent, *A.*, 852.
- Walton, *R. R. F.* See Holgate, *J. E.*
- Wanamaker, *E. M.* See International Copperclad Co.
- Wanderley, *L. A.*, wood as fuel, *B.*, 629.
- Wanderscheck, hydrogen sulphide in fermentation carbon dioxide, *B.*, 871.
- Wanderscheck. See also Felix, *K. S.*
- Wang, *S. C.*, diamagnetic susceptibility of hydrogen and of helium, *A.*, 214.
 problem of the normal hydrogen molecule in the new quantum mechanics, *A.*, 572.
- Wangenheim, *von*, production of carbon by the decomposition of carbon monoxide, *B.*, 146.
- Wangenheim, *von*. See also Fischer, *F.*
- Wanka, *L.* See Scholl, *R.*, and Schwenk, *E.*
- Warburg, *E.*, and Rump, *W.*, photolysis of solutions of hydriodic acid in hexane and in water, *A.*, 490.
- Warburg, *O.*, copper in human blood-serum, *A.*, 317.
 action of carbon monoxide in absence of hæmoglobin, and some properties of the respiratory ferment, *A.*, 537.
 chemical constitution of the respiratory enzyme, *A.*, 795.
 oxidative catalytic action of iron, *A.*, 1195.
- Warburg, *O.*, and Krebs, *H. A.*, loosely-combined copper and iron in blood-serum, *A.*, 192.
- Warburg, *O.*, and Negelein, *E.*, influence of the wave-length on the distribution of the respiratory enzyme; absorption spectrum of the respiratory enzyme, *A.*, 549.
 distribution of the respiratory enzyme between carbon monoxide and oxygen, *A.*, 549.
 photo-decomposition of an iron-carbon monoxide compound and the law of photochemical equivalence, *A.*, 851.
 photochemical dissociation of iron-carbonyl compounds (carbon monoxide-hæmochromogen, carbon monoxide-ferrocysteine) and the law of photochemical equivalence, *A.*, 1390.
- Warburton, *F. W.*, Hall effect and resistance in sputtered tellurium films, *A.*, 9.
- Ward, *A. C.*, pottery kiln, (*P.*), *B.*, 334.
- Ward, *A. F. H.*, and Rideal, *E. K.*, heat of adsorption of oxygen on charcoal, *A.*, 119.
- Ward, *A. T.* See British Thomson-Houston Co., Ltd.
- Ward, *G. S.* See Kohman, *H. A.*
- Ward, *H. K.*, light-activated hæmolysin produced by *Bacillus influenzae*, *A.*, 924.
- Ward, *J. C.* See Sackett, *W. G.*
- Ward, *J. T. H.*, separation of liquids from gases, (*P.*), *B.*, 431.
- Ward, *T. J.* See Comrie, *A. A. D.*
- Ward Baking Co. See Hoffman, *C.*
- Wardell, *E. L.* See Myers, *V. C.*
- Wardlaw, *W.* See Bucknall, *W. R.*, James, *R. G.*, and Spittle, *H. M.*
- Wardle, *G. W.*, fluxes for use in melting aluminium or other non-ferrous metals, (*P.*), *B.*, 863.
- Wardley, *T.* See British Hartford-Fairmont Syndicate, Ltd.
- Warfield, *C. N.*, iodine resonance spectra excited by the yellow mercury lines, *A.*, 211.
- Waring, *C. E.* See Evans, *W. L.*
- Waring, *G. H.*, and Waring, *W. G.*, operation of fumo furnaces [for zinc], (*P.*), *B.*, 96.
- Waring, *H.*, and Associated Lead Manufacturers, Ltd., apparatus for manufacture of lead oxide, (*P.*), *B.*, 14*.
 pulverisers, (*P.*), *B.*, 143.
 apparatus for separating dust from suspension in gases and vapours, (*P.*), *B.*, 216.
- Waring, *R. K.*, mercury-thallium molecule, *A.*, 603.
 absorption bands in the spectra of mixtures of metallic vapours, *A.*, 1166.
- Waring, *W. G.* See Waring, *G. H.*
- Wark, *I. W.* See Bartholomew, (*Miss*) *E. M.*, and Burrows, *G. J.*
- Wark, *N.*, energy losses of a 7-ton and of a 10-ton Héroult furnace, *B.*, 896.
- Wark, *N.* See also Klinar, *H.*
- Warkany, *J.*, determination of inorganic phosphorus in small amounts of blood, *A.*, 193.
- Warm, *K.*, light source devised by Auer von Welsbach, *A.*, 1208.
- Warmuth, *K.*, reflecting power of carbon between the ordinary temperature and 1500°, *A.*, 1309.
- Warnant, *E.*, washing, purifying, and cooling of producer gases, (*P.*), *B.*, 180.
- Warnat, *K.* See Schittenhelm, *A.*
- Warne, *B. D.*, and Calver, *S.*, mixing apparatus particularly for amalgamating or alloying metals, (*P.*), *B.*, 677.
- Warner, *C. W.* See Burns, *R. M.*
- Warner, *J.*, manufacture of [high-percentage] ferrophosphorus, (*P.*), *B.*, 128.
- Warner, *J. P.* See Mead, *B.*
- Warnéry, *A.* See Goldstein, *H.*
- Warnock, *F. V.*, determination of the calorific value of Diesel oil, *B.*, 841.
- Warren, *A. I. G.*, and Precious Metal Industries, Ltd., production of metallised surfaces on non-metallic bodies, (*P.*), *B.*, 97, 271.
 production of [metal]-decorated articles from casein, (*P.*), *B.*, 617.
- Warren, *B. J. W.* See Black, *J. W.*
- Warren, *H. W. H.* See British Thomson-Houston Co., Ltd.

- Warren, L. E., assay of trional tablets, B., 767.
- Warren, W. H., complete history of Wöhler's first organic synthesis, A., 272.
- Warren, W. W., design and operation of glass furnaces, B., 671.
- Warren, W. W. See also General Electric Co.
- Warsop, H. E., [emulsification] apparatus for dealing with bitumen for use as a road material, etc., (P.), B., 369.
- Wartenberg, H. von, "anode effect," A., 371.
- thermochemistry of fluorine, A., 957.
- Wartenberg, H. von, Strzelczyk, B., and Borris, G., pulverising hard substances, B., 877.
- Warth, F. J., and Gupta, N. C. D., determination of hippuric acid and free benzoic acid in the urine of cattle, A., 789.
- Warth, F. J., and Misra, S. K., feeding of sorghum silage and concentrate to Scindi calves, B., 498.
- Wartman, F. S., and Keyes, H. E., development of some fundamentals in the ferric sulphate-sulphuric acid process [for copper ores], B., 525.
- Waschkau, A. See Gröppel, K., and Schmid, L.
- Wasenegger, H. See Fischer, Hans.
- Waser, E., and Gratsos, A., hydrogenation of glyoxaline ring, A., 1261.
- Washburn, C. R. See Mead, B.
- Washburn, E. C., casting of ingots, (P.), B., 527.
- Washburn, E. R. See Bigelow, S. L.
- Washburn, E. W., constancy of pressure during isothermal condensation or vaporisation as a criterion of purity, A., 10.
- Washburne, R. N. See Rice, F. O.
- Wasilewski, L., decomposition of clays, A., 964; B., 671.
- Wasilewski, L., and Mantel, S., electrolytic removal of iron from aluminium salts, B., 669.
- Wasmuht, R., ultrafiltration, A., 985.
- Wassell, H. E. See Jackson, L. E.
- Wasser, E., errors in Ehrenhaft's technique for the detection of sub-electronic charges, A., 341.
- Wasser, E. See also Ehrenhaft, F.
- Wasserman, E. See Traubenberg, J.
- Wassermann, A. See Kuhn, R.
- Wassermann, G. See Schmid, E.
- Wassiliev. See Vassiliev.
- Wastl, H., blood-gases of the carp, A., 1149.
- Watanabe. See Fukuchi.
- Watanabe, S. See Tadokoro, T.
- Watanabe, T., poisoning effects of certain substances on the iron catalyst in the decomposition of carbon monoxide, A., 1336.
- Watase, T. See Iwase, K.
- Watchorn, E., and Holmes, B. E., metabolism of tissues growing *in vitro*. II. Effect of dextrose on ammonia and urea production of kidney tissue, A., 87.
- Waterhouse, E. F. See Schoeller, W. R.
- Waterhouse, H. See Beckinsale, S.
- Waterhouse, W. E. See Premier Oil Extracting Mills, Ltd.
- Waterman, E. W. See Weatherly, L. S.
- Waterman, H. I., clarification of juice in the cane-sugar industry [in white sugar manufacture in Java; presence of glucose in cane molasses], B., 280.
- Waterman, H. I., and Bertram, S. H., refractivity and dispersivity of normal saturated monobasic aliphatic acids, A., 220, 573.
- Waterman, H. I., and Elsbach, E. B., citronellal and citronella oils, B., 654.
- Waterman, H. I., and Groot, J., properties of 2:5- and 2:8-naphthylaminesulphonic acids, A., 407.
- action of nitrous acid on wool fibre and reactions of the product with azo-components, B., 188.
- Waterman, H. I., and Perquin, J. N. J., reaction products obtained by the decomposition of paraffin at 450° ("cracking") and by its decomposition in the presence of hydrogen at high pressures ("berginisation"), B., 4.
- chemical processes occurring in the hydrogenation of sphagnum under pressure, B., 324.
- Waterman, H. I., Perquin, J. N. J., and Westen, H. A. van, decomposition of paraffin wax on heating, B., 512.
- Waterman, H. I., and Priester, R., aromatic allyl and propenyl compounds. I. Safrrole and isosafrrole, A., 999.
- Waterman, H. I., Rooseboom, A., and Oberg, E. L., properties and preparation of lævulose, A., 276.
- Waterman, H. I., and Tussenbroek, M. J. van, desulphurising action of silica gel and failure of the lamp combustion [method for the determination of sulphur] in the presence of mercaptans, B., 323.
- Waterman, H. I. See also Bertram, S. H.
- Waterman, N., and De Kromme, L., cytolysis in cancer. II., A., 86.
- Waterman, R. E. See Williams, R. R.
- Watermotors, Ltd. See Crowley, C. H.
- Waters, W. A. See McCombie, H.
- Watkins, G. See Neeley, G. S.
- Watkins, H. R., and Palkin, S., quantity of alkaloid in *Hyoscyamus* and a new method for its evaluation, B., 68.
- Watkins, W. E., pickling, annealing, and otherwise treating metal sheets, (P.), B., 127.
- plating of metal; [coating iron articles with copper], (P.), B., 788.
- treating [annealing] strip metal [iron or steel], (P.), B., 820.
- Watkins, W. E., and Copper Plate, Sheet & Tube Co., furnace for treating metal, (P.), B., 788.
- Watkins-Pitchford, H., preservation of meat, (P.), B., 622.
- Watson, C. B., and Pure Oil Co., separation of hydrocarbons, (P.), B., 595.
- Watson, E. C., space-distribution of the photo-electrons ejected by X-rays, A., 682.
- Watson, E. M., determination of blood-calcium, A., 1391.
- Watson, F. J., electrometric iron-dichromate titrations, A., 1206.
- Watson, G., incinerators, (P.), B., 506.
- Watson, H. B., interaction of bromine with acetic anhydride. III. Arrest of the reaction; comparison with bromination of acetone, A., 153.
- reaction of bromine with aliphatic acids. II. Relative speeds of bromination of acetyl bromide and acetyl chloride, A., 716.
- Watson, H. B., and Roberts, E. H., interaction of bromine with acetic anhydride. IV. Bromination and chlorination compared, A., 1354.
- Watson, H. E., dielectric constants of ammonia, phosphine, and arsine, A., 107, 815.
- Watson, H. E. See also Bhatt, L. E., Bhide, B. V., and Rao, S. V. R.
- Watson, H. L., and Abrams, H., thermoelectric measurement of temperatures above 1500°, B., 822.
- Watson, H. L., and General Electric Co., production of high-grade vitreous silica, (P.), B., 125.
- filter plate; cellular silica product, (P.), B., 446.
- electric furnace, (P.), B., 576.
- Watson, J. C., fabric dyeing processes, (P.), B., 783*.
- Watson, P. D., use of quinhydrone electrode for following changes of p_H in Swiss cheese, B., 33.
- Watson, R. See Calico Printers' Assoc., Ltd., and Forster, R. B.
- Watson, S. W., heating effects of thorium and radium products, A., 455.
- Watson, S. W., and Henderson, M. C., number of α -particles omitted by thorium-C + C_K, A., 214.
- Watson, W. H., fluorescence secondary X-radiation and the J-phenomenon, A., 818.
- Watson, W. H. See also Clark, R. J.
- Watson, W. W., beryllium hydride band spectra, A., 1305.
- Watson, W. W., and Perkins, B., jun., Zeeman effect in the band spectra of AgH, AlH, ZnH, and MgH, A., 2.
- Watt, J., and Pool, T. A., rotary screening apparatus, (P.), B., 3.
- Watts, H. G. See Crommelin, C. A., and Mathias, E.
- Wayne, E. J., determination of hippuric and phenacetic acids in urine, A., 320.
- Wayne, E. J. See also Rapers, H. S.
- Wayne, T. E., adsorption properties of bone char, B., 796.
- Wayne, T. B. See also Varnau, B. H.
- Wazewski, D. See Elasko, M.
- Weatherby, L. S., and Waterman, E. W., vitamin-B content of avocados, B., 798.
- Weaver, E. A. See Comstock & Wescott, Inc.
- Weaver, E. R., and Shepherd, M., automatic sample-collecting vacuum pump, A., 985.
- Weaver, M. See Luckhardt, A. B.
- Weaver, W., time of sedimentation of small particles in fluids, A., 949.
- Weaver, W. See also March, H. W.
- Webb, C. G. See Dufton, A. F.
- Webb, C. N., [preparation of] benzanilide, A., 406.
- Webb, C. N. See also Hurd, C. D.
- Webb, H., and O'Brien & Partners, Ltd., S., electrodeposition of metals [plating on aluminium and its alloys], (P.), B., 198.
- Webb, J. I. See Haworth, W. N.
- Webb, W. W. See Allmand, A. J.

- Weber, A. P., highly accurate method for interferometric wavelength determinations, and its application to a preliminary determination of krypton lines for a German standard metre in terms of light waves, A., 565.
- Weber, C. J., determination of guanidine bases in urine, A., 1048.
- Weber, C. J. See also Major, R. H.
- Weber, E. See Scholl, R.
- Weber, F. W., mineral tanning and products obtained thereby, (P.), B., 869*.
- Weber, H. H., law of mass action and colloids, A., 16.
- Weber, I. E., Alcock, H. E., and Laporte, Ltd., B., manufacture of phosphoric acid and phosphates, (P.), B., 784.
- Weber, I. E. See also Laporte, Ltd., B.
- Weber, J., binding of acids and bases by proteins, A., 364.
- Weber, J. J. See Chaikoff, I. L.
- Weber, K. See Höbner, C., and Plotnikov, J.
- Weber, O. H. See Vacuumschmelze Ges.m.b.H.
- Weber, P., and Dunlap, H. L., solubility of paraffin wax in pure hydrocarbons, B., 355.
- Weber, W. C. See Dorr Co.
- Webster, D. E., and Norton Co., manufacture of an abrasive article, (P.), B., 193, 859.
- manufacture of rubber-bonded abrasive articles, (P.), B., 928.
- Webster, D. L., K-electron ionisation by direct impact of cathode rays, A., 678.
- direct and indirect characteristic X-rays: their ratio as a function of cathode-ray energy, A., 691.
- Webster, D. L., Clark, H., Yeatman, R. M., and Hansen, W. W., intensities of K-series X-rays from thin targets, A., 1294.
- Webster, D. L., and Yeatman, R. M., ballistic method of ionisation measurement with a quadrant electrometer, A., 1293.
- recombination of ions in the chamber of an X-ray spectrometer, A., 1299.
- Webster, G. E. See Edison Swan Electric Co., Ltd.
- Webster, H., kilns for burning clay products, glazed ware, and pottery, (P.), B., 524*.
- Webster, H., sen., kilns for burning clay products, glassware, and pottery, (P.), B., 605.
- Webster, J. E., phosphorus distribution in grains, A., 1407.
- Webster, L. E. See Parks, G. S.
- Webster, T. A., and Bourdillon, R. B., activation of ergosterol at -180° , A., 557.
- irradiation of ergosterol, A., 1288.
- Webster, T. A. See also Rosenheim, O.
- Wecker, E., manufacture of esters of fatty acids and of mixtures containing fatty acids, (P.), B., 902.
- Wedekind, E., magnetic micro-balance, A., 905.
- Wedekind, E., and Albrecht, W., magnetic differentiation of hydrated ferric oxides. II., A., 9.
- Wedekind, E., and Garre, G., sorptive power of lignin, A., 231.
- colloid nature of lignic acid and so-called Cassel-brown, A., 474.
- Wedekind, E., and Klatte, K. A., asymmetric nitrogen atom. LIV. Activation of an asymmetric tertiary base in the form of its salts with optically active acids, A., 74.
- Wedekind, E., and Maier, G. L., asymmetric nitrogen atom. LV. True autoracemisation with optically active ammonium salts, A., 898.
- Weden, H. See Starkenstein, E.
- Weeber, R. See Häusler, H.
- Weech, A. A., and Michaelis, L., permeability of membranes. V. Diffusion of non-electrolytes through the dried collodion membrane, A., 1319.
- Weech, A. A. See also Michaelis, L.
- Weed, J. M., and General Electric Co., electric furnace, (P.), B., 98.
- [electric] induction furnace, (P.), B., 490.
- apparatus and method for gaseous reactions, (P.), B., 611.
- Weed, K. L. See Shohl, A. T.
- Weeks, E. G., and Merz & McLennan, low-temperature fuel distillation, (P.), B., 739*.
- Weeldenburg, J. G., action of sodium hydroxide on carbon disulphide, A., 602.
- Weese, H., activity and toxicity of the vapours of the lower aliphatic alcohols, A., 1278.
- digitalis uptake and digitalis action in warm-blooded animals. I. Effective dose of various digitalis glucosides for the heart, A., 1400.
- Wegener, G. See Auwers, K. von.
- Wegner, U., statistical series of the Charlier A type and Boltzmann's equation, A., 588.
- Wegscheider, R., concept of substance and the phase rule, A., 132.
- critical isotherms and Wohl's equation of state, A., 1084.
- Wegscheider, R., and Mehl, J., system $\text{Na}_2\text{CO}_3\text{-NaHCO}_3\text{-H}_2\text{O}$ and the range of existence of "trona," A., 957.
- Wehmer, C., loss of fermenting power and change in acid produced by *Aspergillus fumigatus*; fermentation giving gluconic acid in place of fumaric acid, A., 1164.
- Wehrbein, H. L. See Van Seoyoc, G.
- Wehrmann, temperatures of welding flames, B., 840.
- Weichardt, W., and Unger, H., evaluation of a dried yeast in relation to its biological action, B., 423.
- Weichel, O., cupola furnace, (P.), B., 160.
- Weichel, O., and Hollinderbäumer, W., cupola furnace, (P.), B., 413*.
- Weichherz, J., solubility of alkali soaps in hydrocarbons, A., 1086.
- explosive properties of solid hypochlorites, B., 783.
- Weid, E. von der. See De Diesbach, H.
- Weidemann, A. G., fixation of phosphorus by soils, B., 938.
- Weidenhagen, R., melibiase. I. and II., A., 446; B., 31.
- hydrolysis of sucrose by enzymes, A., 1157, 1281.
- specific nature of invertase, A., 1281.
- taka-invertase, B., 423.
- Weidenhagen, R., and Dey, B. B., taka-invertase. II., B., 499.
- Weidenhagen, R., and Heinrich, F., tyrosinase of *Beta vulgaris*, A., 1282.
- Weigand, A., purification of gases by high-tension discharge, (P.), B., 774.
- Weigel, O., and Bezner, E., absorption of mercury, mercury oxide and chloride, bromine, and carbon disulphide by chabasite, A., 1317.
- Weigert, F., new photographic phenomenon, A., 1103.
- Weigert, F., and Lühr, F., silver content of photographic layers, B., 212.
- metallic silver content of photographic films, B., 348.
- Weigert, F., and Nicolai, M., photochemistry of chlorine, A., 253.
- Weigert, F., and Staude, H., monochromatic colour filters, A., 40.
- Weight, O. W. See South Metropolitan Gas Co.
- Weigle, J. J., electric moment of alkali atoms, A., 568.
- magnetic susceptibility of solutions, A., 577.
- Weikel, J. H. See Breyer, F. G.
- Weil, F. H., and Seitz-Werke G.m.b.H., preparation of filtering materials, (P.), B., 353.
- Weil, H., Sapper, E., Krämer, E., Klöter, K., and Selberg, H., diaminitrophenylmethane and similar substances, A., 879.
- Weil, S., and Auerbachówna, S., condensation of pyruvic acid with aromatic amines and aldehydes, A., 70.
- Weil, S., and Goldberg, (Mlle.) F., condensation of pyruvic acid with amines and aldehydes. II., A., 527.
- Weil, S., and Joskowiczówna, A., esters of α -phenylcinchoninic acid, A., 73.
- Weil, S., and Konówna, A., amides of α -phenylcinchoninic acid, A., 303.
- Weil, S., and Rozental, (Mlle.) J., carboxyphenylcarbamido derivatives, A., 636.
- Weil, S. See also Rozenblumovna, S.
- Weiland, H., determination of small quantities of sodium, A., 385.
- Weiland, H. J., Gubelmann, I., and Newport Co., separation of *m*-dinitrobenzene from its isomerides, (P.), B., 360.
- Weiland, H. J. See also Gubelmann, I.
- Weiler, G. See Brahn, B.
- Weiler, J., magneto-optical determination of the intensity of the first two members of the principal series of potassium and the vapour pressure of potassium, A., 1067.
- Weimann, N. von, preparation of readily reproducible red gold sols by means of aqueous extracts of flowers, A., 234.
- Weimann, P. P. von, dispersing action of concentrated aqueous solutions of lithium thiocyanate and lithium iodide, A., 236.
- time effect of the dispersion medium in spontaneous colloidal dissolution, A., 237.
- properties of "pure" cellulose as a colloid, A., 474, 707*.
- the crystalline liquid state as a general property of matter. I. Vectorial aggregation, fluid structure, and stream-double refraction of barium sulphate ultramicrocrystals, A., 584.
- dispersoidological investigations. XVIII. General methods of obtaining fibrous precipitates of any substance; the structure of fibres in general and of cellulose fibres in particular, A., 838.
- dispersoidological investigations. XX. Microscopic investigation of coarse-cellular or membranous jellies in polarised light, A., 838.

- Weimarn, *P. P. von*, dispersoidological investigations. XXI. Caoutchouc-like state of matter in connexion with a microscopic investigation of silk coagula in natural and polarised light, A., 838.
- colloidal dissolution of composite (high-molecular) compounds by means of substances which possess a large true solubility and are inclined to great solvation, A., 840.
- ammonia test for unreduced gold compounds in red gold sols, A., 949.
- dispersoidological investigations. XXII. Jellies and gelatinous precipitates, their classification, conditions of formation, structure, and industrial application, A., 952.
- human saliva as a reagent for preparing red dispersoid solutions and dispersible precipitates of gold, A., 1185*.
- orange-coloured or orange-red colloidal gold solutions, A., 1190.
- production of fibrous precipitates of substances and the structure of the fibres, particularly cellulose fibres, B., 186.
- production of strong threads from silk coagula, B., 518.
- properties of silk coagula formed by pouring colloidal silk solutions into concentrated tannin solutions, B., 518.
- dispersoidological investigations. XVII. Application in industry of silk-fibroin, and other similar chemically-composite compounds, in its colloidal solutions, B., 562.
- the crystalline-liquid state as a general property of matter. VI. Aggregative liquid-crystal state of natural silk, B., 562.
- thread-like structure of natural silk, B., 635*.
- dispersoidological investigations on latex, B., 720.
- behaviour in polarised light of threads from silk coagula of various stages of dehydration and age, B., 850.
- physico-chemical nature of natural silk solutions in neutral, acid, and alkaline solvents, B., 850.
- causes of the rubber-like state of matter, B., 850.
- Weimarn, *P. P. von*, and Hagiwara, *T.*, non-existence of the amorphous state, A., 1185*.
- Weinberg, *A. von*. See I.G. Farbenind. A.-G.
- Weindel, *A.*, glass receiver for determination of benzene and benzenes by means of active charcoal, B., 630.
- coloration of and free acid in coke-oven ammonium sulphate. II., B., 332.
- determination of organic solvents lost in the treatment of aqueous solutions, B., 695.
- Weiner, *R.* See Pawek, *H.*
- Weingand, *R.* See Wolf & Co.
- Weinheim, *E.*, manufacture of [multiple-ply] textile fabrics, (P.), B., 229.
- impregnation or coating of fabrics, paper, or the like web material, (P.), B., 258.
- Weinig, *A. J.*, and Palmer, *I. A.*, trend of flotation, B., 676.
- Weinland, *R.*, and Friede, *H.*, complex anions of meconic and quinic acid with heavy metals, A., 1007.
- Weinland, *R.*, and Holtmeier, *H.*, ferric nickel acetate and similar compounds; a lower basic ferric acetate, A., 856.
- Weinland, *R.*, and Seuffert, *H.*, compounds of 2:3-dihydroxynaphthalene with trivalent iron and aluminium and with arsenic acid, A., 1371.
- Weinmann, *F.* See Neuberg, *C.*
- Weinmayr, *V.* See Pollak, *J.*
- Weinreb, *K.* See Pringsheim, *H.*
- Weinstein, *P.*, determination of the f.p. of milk, B., 910.
- Weintraub, *E.* See General Electric Co.
- Weir, *J. W.*, and Ryan, *W. J., jun.*, treatment of lubricating oil stocks, (P.), B., 44.
- Weir, Ltd., *G. & J.*, and Sim, *J.*, evaporators, (P.), B., 658.
- Weisbecker, *H.* See Wintgen, *R.*
- Weisberg, *L.*, and Barrett Co., fractional condensation of mixed vapours, (P.), B., 802.
- Weisberg, *L.* See also Downs, *C. R.*
- Weisbrod, *F.* See Müller, *Erich*.
- Weise, *W.*, quinine hæmolysis; influence of carbon dioxide, A., 1392.
- Weise, *W.*, and Tropp, *C.*, Jaffe's picric acid reaction, A., 1267.
- Weiser, *H. B.*, and Durham, *E. J.*, adsorption by cadmium sulphide and its importance in the determination of cadmium, A., 944.
- Weiser, *H. B.*, and Porter, *E. E.*, physical chemistry of colour lake formation. II. Adsorption of typical dyes by basic mordants, A., 14.
- physical chemistry of colour lake formation. III. Alizarin lakes, B., 131.
- Weiser, *R. F.* See British Mannesmann Tube Co., Ltd.
- Weiss, *A. J.* See Smith, *G. B. L.*
- Weiss, *F.*, detection and determination of methyl *p*-hydroxybenzoate in foodstuffs, B., 386.
- Weiss, *F.* See also Deussen, *E.*, and Griebel, *C.*
- Weiss, *H.*, X-ray spectrography of alloys, A., 1078.
- Weiss, *Helmul*, citric acid solubility and hardness of basic slag, B., 861.
- Weiss, *Henri*. See Otte, *W.*
- Weiss, *J.*, production of [heat-insulating sheets, (P.)], B., 806.
- Weiss, *Paul*, low-temperature distillation of coal briquettes, B., 289.
- Weiss, *Pierre*, specific heat of nickel above the Curie point, A., 827.
- Weiss, *Pierre*, and Forrer, *R.*, measurement of the moments of iron and nickel at low temperatures, A., 454.
- Weiss, *R.*, and Knapp, *W.*, action of phthaloyl chloride on *m*-methoxybenzoic acid and *m*-tolyl methyl ether, A., 1007.
- Weiss, *R.*, and Schlesinger, *G.*, action of organo-magnesium compounds on *o*-phthalonitrile. II., A., 62.
- Weiss & Downs, Inc. See Downs, *C. R.*
- Weissberger, *A.*, dipole moment of symmetrical compounds, and *cis-trans*-isomerism at "single" linkings, A., 689.
- Weissberger, *A.* See also Williams, *J. W.*
- Weissenberg, *K.*, molecular symmetry in solutions, A., 221.
- symmetry of methane derivatives with four identical groups, A., 462.
- Weissenberg, *K.* See also Mark, *H.*
- Weissenberger, *G.*, binary liquid mixtures and so-called molecular compounds, A., 470.
- Weissgerber, *R.*, primary tar oils, B., 917.
- Weissgerber, *W.*, centrifugal filter, (P.), B., 552.
- Weithase, *H.* See Guthrie, *A.*
- Weithöner, *R.* See Haba G.m.b.H. für industr. Beteiligung.
- Weitkamp, *E.*, ion rays, A., 568.
- Weitz, *E.*, separation of alkali salts, (P.), B., 747.
- Weitz, *E.*, and Achterberg, *F.*, higher polythionic acids. 1. Hexathionic acid, A., 381.
- Weitz, *E.*, and Stamm, *H.*, monobasic, polybasic, and polymonobasic acids and their differentiation, A., 722.
- Weizmann, *A.* See Stadnikov, *G.*
- Welch, *G. B.*, photo-electric thresholds and fatigue, A., 1298.
- Welch, *H. V.*, and International Precipitation Co., manufacture of a waterproof plastic Portland cement composition, (P.), B., 125.
- Welch, *J. B.*, drying kiln, (P.), B., 2.
- Welch, *K. N.*, and Clemo, *G. R.*, preparation of acetonecyanohydrin, A., 1218.
- Welch, *K. N.* See also Clemo, *G. R.*
- Welch, *M. B.* See Coombs, *F. A.*
- Welch, *S. A.* See British Celanese, Ltd.
- Welke, *K.* See Póányi, *M.*
- Wellcome Foundation, Ltd., Henry, *T. A.*, and Sharp, *T. M.*, new therapeutic substances, (P.), B., 140.
- Wellcome Foundation, Ltd., and Timmis, *G. M.*, manufacture of new therapeutic compounds [pure ergotoxine], (P.), B., 348.
- preparation of soluble salts of ergotoxine, (P.), B., 348.
- Weller, *J. R.*, changes produced in apples by the use of cleaning and oil-coating processes, A., 1060.
- Weller, *R.*, Valenta's reaction in relation to its use with gasolines and benzene-benzene mixtures, B., 592.
- Wellings, *G. A.*, and Johnstone, *E.*, bituminous coating compositions, (P.), B., 485.
- Wellington, *S. M.* See Woodall-Duckham (1920), Ltd.
- Wellman, *F. E.*, apparatus for treating [cracking] hydrocarbon oils, (P.), B., 633.
- Wellman, *F. E.*, and Kansas City Gasoline Co., method of distilling hydrocarbons, (P.), B., 842.
- Wellman, *F. E.* See Tartar, *H. V.*
- Wellman Smith Owen Engineering Corporation, Ltd., and Kemp, *A. V.*, gas producers, (P.), B., 470.
- Wells, *A. A.* See Lewis, *W. K.*
- Wells, *A. H.*, Agcaoli, *F.*, Taquibao, *H.*, and Valenzuela, *A.*, composition of Philippine pineapples, B., 767.
- Wells, *A. H.* See also Simpson, *G. E.*
- Wells, *D. A.*, energy distribution among secondary electrons from nickel, aluminium, and copper, A., 213.
- Wells, *P. H.* See Irving, *L.*
- Wells, *R. C.*, J. L. Smith method for the analysis of samarskite, A., 613.
- examination of sulphuric acid for selenium, B., 332.

- Wells, *S. D.*, cooking of vegetable fibre, (P.), B., 259*.
treatment of fibrous material, *c.g.*, for the manufacture of paper, (P.), B., 330.
- Welo, *L. A.*, magnetic studies on salts, particularly those with complex ions, A., 1081.
- Welo, *L. A.*, and Baudisch, *O.*, magnetic moments of iron in complex salts, A., 1311.
- Welo, *L. A.* See also Davidson, *D.*
- Welter, *G.*, fatigue produced [in metals] by prolonged application of a constant load, B., 303.
- Welter, *G.*, and Allied Process Corporation, lithium-containing bearing metals, (P.), B., 59*.
load-alkali metal-containing bearing metal alloys, (P.), B., 59*.
- Weltmann, *O.*, Bsteh, *O.*, and Neumayer, *K.*, influence of active and inactive serum on the bacterial formation of nitrite, A., 204.
- Weltzien, *W.*, alkali-soluble constituents of sulphite-celluloses and artificial silks, B., 563.
- Weltzien, *W.*, and Fowinkel, *P.*, determination of the amount of weighting in piece-weighted silk crêpe-de-chino fabrics, B., 9.
- Wendehorst, *E.*, solubility influences and quantitative analysis, A., 726.
gravimetric determination of molybdenum, A., 861.
molybdenum selenides and selenomolybdates, A., 973.
- Wendler, *A.*, increasing the yield of the soil for growing plants and fruits, (P.), B., 29.
- Wendt, *B.* See I. G. Farbenind. A.-G.
- Wendt, *G. L.*, and Evans, *G. M.*, equilibrium between hydrogen-carbon monoxide and methane-carbon dioxide in the corona discharge, A., 1324.
- Wendt, *G. L.*, and Snyder, *J. E.*, equilibrium of nitrogen and hydrogen with ammonia in a corona discharge, A., 707.
- Wendt, *G. L.*, and Standard Oil Co., removal of sulphur and sulphur compounds from hydrocarbon oil, (P.), B., 221, 438.
- Wengel, *E.* See Fraenkel, *W.*
- Wenger, *P.* See Duparc, *L.*
- Wenk, *F.* See Wigand, *A.*
- Wenner, *W. F.*, and Muntwyler, *E.*, hydrogen-ion concentration and carbon dioxide content of the blood of dogs after removal of the accessory thyroid, A., 791.
- Wennerlöf, (*Fr.*) *I.*, precision measurements in the *L*-series of the new element rhenium, A., 349.
- Went, *N. B. van.* See Scheffer, *F. E. C.*
- Wenz, *K. L.* See Herminghaus & Co., G.m.b.H.
- Wenzel, *E. H.*, treatment of walls for heat-insulation purposes, etc. [by spraying], (P.), B., 266.
- Wenzl, *H.*, behaviour of lignin and chlorolignin in the preparation of wood pulp by means of chlorine, B., 925.
- Wenzl, *H.* See also I. G. Farbenind. A.-G.
- Werby, *A. B.*, and American Automotive Corporation, electrolyte for storage batteries, (P.), B., 864.
- Werkenthin, *T. A.*, and Solar Refining Co., fractional extraction of petroleum hydrocarbons with alcohol, (P.), B., 739*.
apparatus for fractional extraction of petroleum hydrocarbons with alcohol, (P.), B., 842.
- Werking, *L. C.* See Benner, *R. C.*
- Werminde, *H. H.*, and Belden Manufacturing Co., apparatus for standardising solutions, (P.), B., 467.
- Werner, *H.*, stability of coarse particles in solutions. III. Influence of concentration of the disperse phase and of salt on clarification, A., 584.
- Werner, *O.* See Walden, *P.*
- Werner, *Oscar*, refining of oils and other liquids, (P.), B., 472.
- Werner, *T. H.* See Hall, *N. F.*
- Werner, *W.*, breakdown of solid insulators, B., 576.
- Wernick, *S.*, effect of colloids in the electrodeposition of silver from silver nitrate solutions, A., 851.
- Wernicke, *R.*, determination of the total bases of the serum and other liquids by electrodialysis, and other applications of the method, A., 1064.
- Wernicke, *R.*, Modern, *F.*, and Scotti, *C. M.*, biological standardisation of insulin, A., 799.
- Wernli, *A.* See Moser, *H.*
- Werre, *J. P.* See Holleman, *L. W. J.*
- Wertenstein, *L.*, purification of radon, A., 684.
method of determining the volume of 1 curie of radon, A., 932.
recoil velocities in β -particle emission in thorium-B, A., 933.
- Wertenstein, *L.* See also Herszfeld, *H.*
- Werth, *A. van der*, modified apparatus for moisture determination, A., 263.
- Werthan, *S.*, and Wien, *R. H.*, accelerated tests for the settling of pigments in paints, B., 647.
- Wertheimer, *E.*, regulation of metabolism. V. Hunger metabolism; dependence of muscular glycogen deposition on the nervous system. VI. Neural regulation of glycogen deposition, A., 322.
- Werz, *W.* See Roesch, *W.*
- Wescott, *W. B.*, and Rubber Latex Research Corporation, manufacture of reinforced abrasive articles [containing rubber], (P.), B., 494.
manufacture of reinforced rubber articles, (P.), B., 580.
plastic material, (P.), B., 827.
- Wescott, *W. B.* See also Rubber Latex Res. Corp.
- Wesenberg, *G.* See Günzler, *H.*
- Wessbecher, *H.* See Goldschmidt, *S.*
- Wessel, *C.*, coke and gas-oven and process for heating the same, (P.), B., 512.
distillation of coal tar, (P.), B., 778, 919.
- Wessel, *F.*, determination of alkaloids in ergot, B., 501.
- Wessely, *F.*, and Demmer, *E.*, constitution of frazetin, A., 893.
- Wessely, *F.*, and John, *M.*, α -amino-*N*-carboxylic anhydrides. V. Side-reactions of the pyridine decomposition, A., 73.
carbonylbisamino-acids and their transformation products, A., 530.
- Wessely, *F.*, and Komm, *E.*, isomeric glycylglycine-*N*-carboxylic acids, A., 623.
- Wessely, *F.* See also Späth, *E.*
- Wessenberg, *K.*, tetrahedral carbon atom and crystal structure of pentaerythritol, A., 820.
- Wesson, *D.*, report of Du Bosque colorimeter committee, B., 613.
- West, *A. P.* See Santiago, *S.*, Santos, (*Miss*) *I.*, and Vicente, *M. L. A.*
- West, *B. L.*, and National Aniline & Chemical Co., Inc., production of dyo powders, (P.), B., 741.
- West, *C. R.* See Hatcher, *W. H.*
- West, *D. W.* See Levy, *L. A.*
- West, *E.* See West, *F. J.*
- West, *E. S.*, laboratory condenser, A., 984.
- West, *F. J.*, and West, *E.*, coke-extracting mechanism for vertical retorts for distillation of carbonaceous materials, (P.), B., 514*.
- West, *G. H.* See Pike, *R. D.*
- West, *J.* See Brown, *G. B.*, and Taylor, *W. H.*
- West, *R.* See Dakin, *H. D.*
- West, *R. D.* See Thompson (Dudley), Ltd., *J.*
- West, *W.* See Richardson, *E. L.*
- West Process Pavement Co., manufacture of pavements, (P.), B., 405.
- Westbrook, *L. R.*, and Grasselli Chemical Co., cadmium plating, (P.), B., 759.
- Weston, *H. A. van.* See Waterman, *H. I.*
- Westendick, *F. C.* See Windsor, *W. T.*
- Wester, *D. H.*, occurrence and significance of manganese in plants, A., 334.
- Wester, *D. H.* See also Schirm, *A.*
- Westerholt, *F.* See Heike, *H.*
- Westerman, *B. D.*, and Rose, *W. C.*, availability of disulphide acids in replacing cystine of diet, A., 87.
availability of disulphide acids in replacing cystine of diet. II. α -Dihydroxy- β -dithiodipropionic acid; oxidation of disulphide acids in animal organism, A., 1396.
- Westerman, *B. D.* See also Rose, *W. C.*
- Western Electric Co., Inc., heat-treatment of loaded conductors, (P.), B., 339.
magnetic core material, (P.), B., 611.
- Western Electric Co., Inc., Andrews, *J. W.*, Gillis, *R.*, Bandur, *A. F.*, Beath, *C. P.*, Heinecke, *H. M. E.*, and Karcher, *J. C.*, magnetic materials, (P.), B., 490.
- Western Electric Co., Inc., and Elmen, *G. W.*, magnetic materials [alloys], (P.), B., 97.
- Western Electric Co., Inc. See also Bandur, *A. F.*, Burns, *R. M.*, Daniels, *E. A.*, Dean, *R. S.*, Elmen, *G. W.*, Housekeeper, *W. G.*, Karcher, *J. C.*, Kemp, *A. R.*, Price, *R. A.*, Reeve, *H. T.*, Roman, *F. L.*, Schumacher, *E. E.*, Siegmund, *H. O.*, and Stewart, *C. R. G.*
- Western Gas Construction Co. See Hayes, *F. B.*
- Western States Machine Co., and Roberts, *E.*, centrifugal apparatus, (P.), B., 248.
- Westfelt, *A. U.*, production of [cellular] heat-insulating material, (P.), B., 193.

- Westgren, A., and Bradley, A. J., X-ray analysis of silver-aluminium alloys, A., 1078.
- Westgren, A., and Phragmén, G., X-ray analysis of copper-tin alloys, A., 1174.
- Westgren, A., Phragmén, G., and Negresco, T., structure of the iron-chromium-carbon system, B., 408.
- Westgren, A. See also Astrand, H., Persson, E., and Runqvist, A.
- Westhues, M. See Feulgen, E.
- Westinghouse Electric & Manufacturing Co., and Sworykin, V. K., photo-electric cell, (P.), B., 129.
- [photo-sensitive surface for] photo-electric cells and other electric discharge devices, (P.), B., 790.
- Westinghouse Electric & Manufacturing Co. See also Bailey, R. W., Brace, P. H., Brown, A. L., Jones, J. L., Keene, A. D., Lincoln, R. B., Pilling, N. B., Rodman, C. J., Schmidt, L., Scott, H., and Vaughan, V. G.
- Westinghouse Lamp Co., and Marden, J. W., introduction of chemically active [alkali] metals into evacuated or gas-filled containers, (P.), B., 717.
- Westinghouse Lamp Co., and Sproesser, W. C., manufacture of electron-emitting bodies [cathodes], (P.), B., 199.
- Westinghouse Lamp Co. See also Gero, W. B., Gustin, D. S., Hall, R. D., Iredall, C. V., Lederer, E. A., Lyle, A. E., Marden, J. W., Meister, G. W., Myers, R. E., O'Neill, G. D., Rentschler, H. C., Rich, M. N., Romanelli, E., Steel, B. F., and Thomas, T. P.
- Westly, J., and Norske Aktieselskab for Elektrokem. Ind. of Norway, employment of self-baking electrodes, (P.), B., 199*.
- Westmoreland Chemical & Color Co. See Stewart, H. C.
- Weston, L., non-inflammable photographic films, (P.), B., 655.
- Weston, P. E., and Adkins, H., catalysis with copper in the Ullmann reaction, A., 488.
- catalysis in the conversion of allyl alcohol and acetaldehyde into propaldehyde, A., 968, 991.
- Westphal, K. See Windaus, A.
- Westphalen, H., preparation of coconut fibres for spinning, (P.) B., 155.
- Westwater, W., Frantz, H. W., and Hildebrand, J. H., internal pressure of pure and mixed liquids, A., 228.
- Weszelzsky, J. von, exact determination of radon, A., 214.
- Weszelzsky, J. von, and Imre, L., existence of meso-products in the disintegration series of actinium, A., 1169.
- Wetherbee, H. E., treatment of metalliferous sulphides, (P.), B., 645.
- Wetherbee, H. E., Grant, R. F., and Hanna, H. M., treatment and formation of artificial fuels, (P.), B., 804.
- Wetherbee, H. E., Grant, R. F., Hanna, H. M., Wetherbee, H. E., and Jacobus, W. L., production of artificial fuel, (P.), B., 804.
- Wetherilt, J. N., and Williams, T. G., [heating apparatus for] burning of [atomised] liquid fuel, (P.), B., 880.
- Wetterblad, T., $K\beta$ -lines of the elements potassium to manganese, A., 1312.
- Wetzer, W., salt formation in the Chilean desert, A., 612.
- Wever, F., [magnetic transformation of iron], A., 225.
- Wever, F., and Hindrichs, G., metallurgy of high-frequency induction furnaces, B., 127.
- Weyer, E. R., and Rettger, L. F., comparison of six different strains of the organism commonly concerned in large-scale production of butyl alcohol and acetone by the biological process, B., 621.
- Weygand, C. [with Bauer, E., Günther, H., and Heynemann, W.], constitution of keto-enols from β -diketones, A., 291.
- Weygand, C. [with Forkel, H., and Bischoff, C.], C-methylation of 1:3-diketones and methyl-p-methoxydibenzoylmethane [γ -phenyl- α -p-methoxyphenyl- β -methylpropane- α -y-dione], A., 643.
- Weygand, C. [with Hennig, H.], isomeric relationships in the chalkone series. V. Dibenzoylmethane, p-bromodibenzoylmethane, and p-methylchalkone [phenyl p-methylstyryl ketone], A., 180.
- Weygand, C., and Bauer, E. [with Heynemann, W.], reaction of hydroxylamine with enol ethers and acetylenic ketones; new constitutionally unambiguous isooxazole synthesis, A., 187.
- Weyman, (Mrs.) E. M., Wallis, R. P., and Weyman, G., saturators for the manufacture of crystalline salts, (P.), B., 123.
- Weyman, G. See Weyman, (Mrs.) E. M.
- Weymouth, A. A., occurrence of tridymite and cristobalite in a granite xenolith, A., 1111.
- Wha, C. See Rosenmund, K. W.
- Whaley, W. L. O., application of the U.S.P. methyl alcohol test, B., 359.
- Whatmough, W. A., production of emulsions, (P.), B., 99, 308*.
- Whatmough, W. H., apparatus for the dispersion of solids in liquids, (P.), B., 73.
- apparatus for the production of dispersions of solids or liquids, (P.), B., 658.
- Wheeler, A. S., and Bost, R. W., p-cymene. X. 2:5-Diamino-p-cymene and certain new dyes, B., 666.
- Wheeler, A. S., and Brooks, F. P., p-cymene. IX. Nitration of 2-amino-p-cymene, A., 54.
- Wheeler, A. S., and Carson, B. G., hydroxynaphthaquinone. VII. Bromination of naphthazarin, A., 67.
- Wheeler, A. S., and Cutlar, L. F. P., p-cymeno. VIII. p-Cymylene-2:5-diamine; dyes derived from 2-amino- and 5-bromo-2-amino-p-cymene, A., 55.
- Wheeler, A. S., and Norton, R. D., diketones. I. Reaction between 4-phenylsemicarbazide and acetylacetone, A., 1261.
- Wheeler, A. S., and Thomas, R. E., 5-bromo-m-4-xyldine, A., 1127.
- Wheeler, E. S., Kuechler, A. H., and Lawrence, H. M., properties of refractories in zinc metallurgy, B., 54.
- Wheeler, F. See Troop, R. S.
- Wheeler, H. F. See Godfrey, (Sir) G. C.
- Wheeler, R. V., coke for crucible steel melting, B., 392.
- Wheeler, R. V. See also Ellis, O. C. de C., Francis, W., Holroyd, R., and Maxwell, G. B.
- Wheeler, T. S., empirical formula expressing mutual solubility of two salts with a common ion, A., 131.
- Wheeler, T. S. See also Willson, F. G.
- Wheeler-Hill, E. See Amberger, K.
- Whelen, M. S. See Basterfield, S., and Hill, H. S.
- Wherry, E. T., crystallography and optical properties of β -lactose, A., 820.
- Whessoe Foundry & Engineering Co., Ltd., and Chambers, R. L., purifiers [with removable covers] for use in the manufacture of gas, (P.), B., 561.
- Whiddington, R., passage of electrons through slits, A., 685.
- Whiddington, R. See also Jones, H.
- Whipple, G. H. See Robscheit-Robbins, F. S.
- Whipple, M. C., and Chandler, H. C., five years of rapid sand filtration [of water] at Cambridge, Mass., B., 142.
- Whitaker, G. C. See Stout, L. E.
- Whitaker, J. W., use of the bomb for the determination of carbon and hydrogen [in combustible material], B., 217.
- Whitby, G. S., organophilic colloids, A., 17.
- Whitby, G. S., and Evans, B. A., influence of fatty acids on vulcanisation [of rubber], B., 493.
- Whitby, G. S., and Katz, M., polymerisation of indeno, cinnamylidenefluorene, and some indene derivatives, A., 627.
- Whitby, G. S., McNally, J. G., and Gallay, W., colloidal and elastic properties of polyvinyl acetate, A., 1186.
- Whitby, G. S., and Roessler, & Hasslacher Chemical Co., manufacture of substituted thiouram polysulphides, (P.), B., 763*.
- Whitby, G. S. See also Macallum, A. D.
- Whitby, L. See Vernon, W. H. J.
- Whitcomb, W. O., and Johnson, A. H., effect of severe weathering on certain properties of wheat, B., 462.
- White, A. G., burning of carbon disulphide. II. Velocity of uniform movement of flame in carbon disulphide-second combustible-air mixtures, A., 597.
- photographic examination of moving flames, A., 729.
- White, A. H., and Hightower, F. W., apparatus for storing and circulating gases [in the laboratory], B., 143.
- White, A. H. See also Hightower, F. W.
- White, C. B., and Vivatex Processes, Inc., dyeing of textile materials, (P.), B., 12.
- White, C. E., and Gordon, N. E., rôle of phosphates in the taking-up of dyes by mordants, A., 471.
- White, (Miss) E., conductivities of sodium and potassium derivatives of β -ketonic compounds in alcoholic solution, A., 845.
- White, E. C., apparatus for continuous gas analysis, A., 976.
- White, E. F., chemical engineering may revive sublimation of sulphur, B., 567.
- White, E. W. See Lawrence Leather Co., A. C.
- White, F. D., reducing substances in the blood of the dog-fish and certain other fishes, A., 786.
- White, G. N., Beckett, E. G., Thomas, J., and Scottish Dyes, Ltd., employment of cement, (P.), B., 524.

- White, H. E., and Federal Abrasives Co., electric furnace for producing silicon carbide, (P.), B., 900.
- White, H. E., and Gibbs, R. C., two electron multiplets of the first and second long periods, A., 1297.
- White, H. E. See also Gibbs, R. C.
- White, H. L. See Schmitt, F. O.
- White, H. P. See Browne, W. R.
- White, J., spring clip for Gutzeit tube, B., 89.
- pulp-straining machines, (P.), B., 879.
- White, M. G., and Willaman, J. J., plant diseases. X. Fermentation of pentoses by *Fusarium lini*. XI. *Fusarium lini* and the pyruvic acid theory of alcoholic fermentation, A., 563.
- White, P., and Millington, G., velocity distribution of β -particles after passing through thin foils, A., 1302.
- White, R. J. See Yost, D. M.
- White, W. A., and White Oil Separators, Ltd., separation of liquids of different specific gravities, (P.), B., 507.
- White, W. K. See Gilmore, F. E.
- White Oil Separators, Ltd. See White, W. A.
- Whitehead, A. D. See Brady, O. L.
- Whitehead & Poole, Ltd., and Wagstaff, J., apparatus for treatment [jigging] of fabrics in industrial processes, (P.), B., 445.
- Whitehouse, A., production of [multi-coloured] gold strip or sheet, (P.), B., 489.
- Whitelegg, C. J. See Bleachers' Assoc., Ltd.
- Whiteley, J. H., hair cracks in steel rails, B., 17.
- effects observed in quenched liquid steel pellets and their bearing on bath conditions, B., 753.
- Whiteman, E. P., Trivelli, A. P. H., and Sheppard, S. E., preparation and properties of some synthetic photohalide emulsions, B., 108.
- Whitman, J. L., and Spencer, S. R., conductivity and viscosity of solutions of lithium nitrate in certain mixed solvents [at 25°], A., 957.
- Whitman, W. G. See Morris, F. H.
- Whitmore, F. C., Culhane, P. J., and Neher, H. T., anhydro-2-hydroxymercuri-3-nitrobenzoic acid, A., 435.
- Whitmore, F. C., and Woodward, (Miss) G. E., *p*-iodobenzoic acid, A., 412.
- Whitnah, C. H. See Upson, F. W.
- Whitney, L. F. See Comstock & Wescott, Inc.
- Whittaker, C. M., and Courtaulds, Ltd., manufacture of artificial silk, (P.), B., 478*.
- Whittaker, C. W. See Merz, A. R.
- Whittaker, J. M., electron in a gravitational field, A., 933.
- Whitworth, J. B. See McClelland, N. P., and Mills, W. H.
- Whyburn, G. T., and Bailey, J. R., behaviour of β -phenylsemicarbazones on oxidation, A., 516.
- Whympers, R. See British Arkady Co., Ltd.
- Whytlaw-Gray, R. See Addingley, C. G., and Topley, B.
- Wiarda & Co., J. C., treatment of manganese ores, (P.), B., 235.
- Wibaut, J. P., Diekmann, J. J., and Rutgers, A. J., addition of gaseous hydrogen chloride and bromide to ethylene and propylene under the influence of catalysts, A., 504.
- Wibaut, J. P., and La Bastide, G. L. C., some derivatives of di-(2-pyridyl)amine, and tri-(2-pyridyl)amine, A., 75.
- Wibaut, J. P., and Overhoff, J., preparation of 2:2'-dipyridyl, A., 904.
- catalytic dehydrogenation of nicotine, A., 1386.
- Wibaut, J. P. See also Dingemans, E.
- Wiberg, E., valency chemistry of boron, and the constitution of the simplest boron hydride, A., 936.
- Wiberg, T. A. See Josefson, J.
- Wichers, E. See Collins, W. D.
- Wichman, F. M., Hartlapp, A. P., and United States Smelting, Refining, & Mining Co., mixing and disintegrating apparatus, (P.), B., 72.
- Wick, G., and Barchfeld, G., method of determination of m. p. with electrical signal, A., 729.
- Wickenden, T. H. See Merica, P. D.
- Wickwire, G. C. See Burge, W. E.
- Widgren, E. H. See Widgren, K. A.
- Widgren, K. A., and Widgren, E. H., gas producers, (P.), B., 663.
- Widenmayer, L. See Eibner, A.
- Widhe, T. See Smith, Lennart.
- Widmann, H. See Glocker, R.
- Widmark, E. M. P., determination of free and combined benzoic acid by means of the rocking extraction method, A., 96.
- extraction of liquids, A., 1064.
- Widmer, A., and Kalberer, O. E., detection of cider in wine by microscopical examination of the sediment, B., 383.
- Widmer, G. See Society of Chemical Industry in Basle.
- Widmer, R. See Karrer, P.
- Widström, G., applicability of the Schiff reaction to the determination of thymus-nucleic acid, A., 1393.
- Wiebe, R. See Giaque, W. F.
- Wiebelitz, H., testing of copaiba and Peru balsams, B., 547.
- Wiechowski, S., platinum electrode for laboratory and demonstration use, A., 147.
- Wiedemann, E. See Treibs, A.
- Wiederholt, W. See Liebreich, E.
- Wiedmer, J. See Trachsel, F.
- Wiegand, A. P. See Wiegand, E. L.
- Wiegand, C. See Auwers, K. von.
- Wiegand, E. H., and Bullis, D. E., determination of water in dried prunes, B., 766.
- Wiegand, E. L., Wiegand, A. P., and Wiegand Co., E. L., production of electrical heating elements, (P.), B., 490.
- Wiegand, W. See Kuhn, R.
- Wiegand, W. B., rubber mixings, B., 61.
- Wiegand, W. B. See also Sheppard, J. R.
- Wiegand Co., E. L. See Wiegand, E. L.
- Wiegel, E., colours of colloidal silver, especially on flocculation, A., 122.
- Wiegner, G. [with Tuorila, P.], coagulation, A., 839.
- Wieland, H., and Franke, W., mechanism of oxidation processes. XIV. Activation of oxygen by iron, A., 965.
- Wieland, H., Garbsch, P., and Chavan, J. J. [with Schäfer, A.], cyclic α -nitroketones, A., 641.
- Wieland, H., and Sutter, H., mechanism of oxidative processes. XIII. Oxidases and peroxidases, A., 921.
- Wieland, H., and Voecke, F., bile acids. XXVIII. Nature of the fourth ring, A., 1007.
- Wien, M., variation of electrical conductivity of solutions with field strength, A., 244.
- voltage effect in the conductivity of electrolytes in weaker fields, A., 712.
- Wien, R. H. See Werthan, S.
- Wiener, H. J. See Wiener, R. E.
- Wiener, R. E., and Wiener, H. J., uric acid. 1. Comparison of the direct and isolation methods for determining uric acid in blood filtrate, and a modification of Folin's method, A., 786.
- Wierl, R. See Mark, H.
- Wiernik, M., determination of iodine values [of oils] by Hanus' method, B., 530.
- Wiertelak, J. See Gliselli, S.
- Wierzuchowski, M., and Gadowska, H., intermediary carbohydrate metabolism. IV. Reaction of normal dogs to continuous intravenous injection of dextrose, A., 197.
- Wiese, G. See Klingstedt, F. W.
- Wiesel, J. B. See Hercules Powder Co.
- Wiesler, K., decomposition of methyl chloride at high temperatures, A., 392.
- Wiesner, B. P., ovarian hormone, A., 554.
- Wiesner, J., decolorisation of [sugar] juices by activated carbons, B., 103.
- Wiessmann, H., determination of nutrient content of a soil by pot experiment, B., 279, 538.
- Wiessmann, H., and Schramm, E., influence of potash manuring with increasing nitrogen dressings on the yield and quality of barley in 1927, B., 682.
- Wiessmann, H., and Steinfatt, K., determination of soil reaction by means of Merck's universal indicator, B., 279.
- Wiessmann, H. See also Honcamp, F.
- Wietzel, G. See I. G. Farbenind. A.-G.
- Wietzel, R. See I. G. Farbenind. A.-G.
- Wigan Coal & Iron Co., Ltd., and Leek, A. E., treatment [washing] of coal, etc., (P.), B., 114.
- Wigan Coal & Iron Co., Ltd. See also Leek, A. E.
- Wigand, A., and Wenk, F., radon content of the atmosphere as measured during aeroplane ascents, A., 1069.
- Wigand, R., parenteral action of irritants. I. Intravital decomposition of protein in the liver of sensitised animals. II. Biological action of parenterally injected amino-acids. III. Histological findings in liver, A., 919.
- Wiger, B. See Boedtker, E.
- Wiggin & Co., Ltd., H., and Lobley, A. G., electric furnace, (P.), B., 415.

- Wiggin & Co., Ltd., *H.*, and Lobley, *A. G.*, mounting or suspension of resistances in electric furnaces, (P.), B., 760.
- Wigginton, *R.*, lignin, B., 520.
- resins of Wealden lignite, B., 590.
- Wigglesworth, *V. B.*, digestion in the cockroach. III. Digestion of proteins and fats, A., 324.
- Wightman, *E. P.*, and Quirk, *R. F.*, intensification of the latent image on photographic plates and films. II. Decomposition of hydrogen peroxide and the mechanism of latent image intensification, B., 141.
- Wightman, *E. P.*, and Sheppard, *S. E.*, new effect of chromic acid on photographic plates, B., 548.
- Wignall, *H.* See British Dyestuffs Corp., Ltd., and Payman, *J. B.*
- Wignall, *J. S.* See Hodgson, *H. H.*
- Wigner, *E.* See Neumann, *J. von.*
- Wiig, *E. O.*, carbon dioxide cleavage from acetonedicarboxylic acid, A., 963.
- Wijk, *A. van*, and Reerink, *E. H.*, vitamin-D and isoergosterol, A., 1307.
- Wijk, *A. J. A. van der*, synthesis of ammonia by the electric discharge in the presence of mercury, A., 963.
- Wijk, *W. R. van*, intensities in the spark spectrum of oxygen, A., 450.
- Wijk, *W. R. van*. See also Ornstein, *L. S.*
- Wikul, *M.*, tartrate modification of the cobaltinitrite method for the gravimetric determination of potassium, A., 264.
- Wilborn, *F.*, ageing of boiled oil, B., 131.
- influence of driers on the drying of oil of amber, B., 131.
- production of flat oil varnishes, B., 492.
- Wilbur, *L. F.* See Luck, *J. M.*
- Wilcox, *W. D.*, manufacture of mixed water-gas and coal gas, (P.), B., 79.
- Wilcoxon, *F.* See Hartzell, *A.*
- Wild, *H.* See Heller, *G.*
- Wild, *W.* See I. G. Farbenind. A.-G.
- Wilde, *W. D.* See Oldham & Son, Ltd.
- Wilder, *F. L.*, Morris, *E.*, Schiff, *E.*, and King, *E. S.*, roasting of [tin] ores and oxidation of pyritic and sulphide ores, etc., (P.), B., 574.
- treatment of pyritic [tin] ores, residues, etc., (P.), B., 609.
- [roasting furnace for] treatment of ores, etc., and metallurgical products, (P.), B., 756.
- extraction of tin from slime tin, tin-bearing ores, etc., (P.), B., 758.
- Wilder, *F. L.*, Schiff, *E.*, and King, *E. S.*, [washor] apparatus for concentrating minerals, (P.), B., 645.
- Wildermann, *M.*, manufacture of porous bodies, diaphragms, filters, etc., of obonite, (P.), B., 62*.
- Wildt, *R.*, photographic diffusion-halation, B., 731.
- Wiles, *E. R.*, treatment of petroleum products, (P.), B., 884.
- Wilhelm, *F.* See Sautermeister, *C.*
- Wilhelm, *J. O.* See McLennan, *J. C.*
- Wilhelm, *P.*, printing of alizarin red on non-prepared fabric, B., 49.
- Wilhelm, *C. M.*, and Bollman, *J. L.*, specific dynamic action and nitrogen elimination following intravenous administration of various amino-acids, A., 668.
- Wilke, *E.* See Boehringer & Söhne G.m.b.H., *C. F.*
- Wilke, *W.* See I. G. Farbenind. A.-G.
- Wilke-Dörfurt, *E.*, origin of Chile saltpetre, A., 148.
- iodine content of mussel shells [and its relation to] the goitre problem. II., A., 321.
- determination of iodine in minerals, B., 95.
- Wilke-Dörfurt, *E.*, Beck, *J.*, and Plepp, *G.*, occurrence of iodine in phosphate beds, A., 864.
- Wilke-Dörfurt, *E.*, and Schliephake, *O.*, rare earths, A., 494.
- Wilkie, *A. L.*, purification of palmitic and stearic acids, A., 272.
- Wilkie, *A. L.*, and Shaw, *B. D.*, purification of pyridine and α -picoline [2-methylpyridine] by fractional distillation, A., 301.
- Wilkie, *A. L.* See also Shaw, *B. D.*
- Wilkie, *D.*, relation between concentration and action of adrenaline, A., 1286.
- Wilkins, *T. R.*, theory of the origin of the actinium series, A., 1302.
- Wilkinson, *E. W.*, and Minerals Separation North American Corporation, treatment of fine coal, (P.), B., 436.
- Wilkinson, *E. W.* See also Chapman, *G. A.*
- Wilkinson, *J. A.* See Ralston, *A. W.*
- Wilkinson, *S. W.*, dyeing of animal fibres, textile fabrics, or substances of a protein nature, (P.), B., 480.
- Will, *G.* See Pringsheim, *H.*
- Willaman, *J. J.*, modified scale for Pfund colour grader for use on dark syrups, B., 652.
- Willaman, *J. J.* See also Appleman, *C. O.*, Franke, *K. W.*, and White, *M. G.*
- Willard, *H. H.*, Green, *M.*, and Parker Rust-Proof Co., production of rustproofing material [for iron], (P.), B., 373*.
- Willard, *H. H.*, and Young, *P.*, ceric sulphate as a volumetric oxidising agent. I. Determination of calcium. II. Determination of iron. III. Titration of iodide. IV. Determination of arsenic. V. Determination of antimony. VI. Volumetric determination of cerium, A., 725.
- ceric sulphate as a volumetric oxidising agent. VII. Determination of vanadium in presence of chromium, tungsten, and iron, A., 1207.
- volumetric determination of vanadium in chromic-vanadium-tungsten steels, B., 643.
- persulphate method for [determining] chromium plus vanadium in chromic-vanadium-tungsten steels, B., 643.
- Willard, *H. H.* See also Parker Rust-Proof Co.
- Willavoys, *H. J.* See MoBain, *J. W.*
- Willcox, *W.*, biological test for blood, A., 191.
- Wille, *H. V.*, welding of cast iron, (P.), B., 336.
- Willemart, *A.*, coloured rubrene hydrocarbons, A., 996.
- Willemart, *A.* See also Moureu, *C.*
- Willems, *F.*, determination of oxides in steel, B., 486.
- Willems, *H. W. V.*, structure of millerite, A., 390.
- Willems, *H. W. V.* See also De Jong, *W. F.*
- Willems, *J.* See Pfeiffer, *P.*
- Willets, *P. G.*, and Hartford-Empire Co., zirconia-faced refractory, (P.), B., 15.
- Willets, *P. G.* See also Hartford-Empire Co.
- Willey, *E. J. B.*, active nitrogen. IV. Independence of the afterglow and the chemical properties of active nitrogen, A., 3.
- active nitrogen, A., 341.
- active nitrogen. V. Decay of the nitrogen afterglow, A., 961.
- Williams, *A. L.*, locust-kernel gum and oil, B., 725.
- Williams, *A. T.*, structure of the induction spectra of the rare gases; arc spectra of argon, krypton, and xenon, A., 1165.
- Williams, *A. T.* See also Loyate, *R. G.*
- Williams, *B. H.*, thermal decomposition of hydrogen peroxide in aqueous solutions, A., 598.
- Williams, *C. E.*, and Sims, *C. E.*, electric furnace cast iron, B., 672.
- Williams, *D. A.* See Roemer, *H. A.*
- Williams, *D. M.*, and James, *T. C.*, addition of bromine to ethylenic compounds in non-hydroxylic solvents, A., 412.
- Williams, *E. H.*, magnetic susceptibility of rare-earth metals, A., 1314.
- Williams, *E. J.*, spatial distribution of photo-electrons produced by X-rays, A., 213.
- passage of α -rays and β -rays through matter, A., 215.
- relation between mean stopping power and mean range of β -rays, A., 678.
- Williams, *E. R.*, and Vulcan Mold & Iron Co., [cast iron] ingot mould, (P.), B., 574.
- Williams, *F. E.* See Kellaway, *C. H.*
- Williams, *F. W. R.* See Sturtevant Engineering Co., Ltd.
- Williams, *G.* See Orton, *K. J. P.*
- Williams, *G. K.*, apparatus for use in refining lead bullion and similar operations, (P.), B., 20.
- refining of lead bullion containing other metals, (P.), B., 270, 863*.
- Williams, *H.*, manufacture of tinned plates, (P.), B., 373.
- Williams, *H. M.*, and General Motors Research Corporation, bearing composition, (P.), B., 305*.
- coating [for metallic] moulds, (P.), B., 337.
- Williams, *I.* See Grasselli Chemical Co.
- Williams, *J.*, decomposition of hydrogen peroxide by liver catalase, A., 549.
- Williams, *J. B.*, assay of *Ephedra vulgaris*, B., 545.
- Williams, *J. F.* See Cowper, *A. D.*
- Williams, *John F.* See Phillips, *R.*
- Williams, *J. W.*, electric moment of the water molecule, A., 462.
- application of Debye's dipole theory to binary liquid mixtures, I. and II., A., 578, 1180.
- electric moment and space-orientation of atoms in some *para*-derivatives of benzene, A., 689.
- dielectric constants of binary mixtures. VIII. Electric moment as a vector quantity, A., 1180.

- Williams, J. W., and Chucks, J. A., hydrogen-ion concentration of saturated solutions of calcium carbonate and hydrogen carbonate in water, A., 18.
- Williams, J. W., and Mathews, J. H., dielectric constants of binary mixtures; application of the method of partial molal quantities, A., 11.
- Williams, J. W., and Ogg, E. F., dielectric constants of binary mixtures. V. Electric moments of certain organic molecules in carbon disulphide and hexano solution, A., 229.
- Williams, J. W., and Schwingel, C. H., dielectric constants of binary mixtures. VI. Electric moments of certain nitro-derivatives of benzene and toluene, A., 355.
- Williams, J. W., and Weissberger, A., dielectric constants of binary mixtures. VII. Electric moments of certain diphenyl derivatives; their relation to the several structures, A., 1180.
- Williams, J. W. See also Brönsted, J. N., and Falkenhagen, H.
- Williams, K. See Monroe, K. P.
- Williams, K. A., selective hydrogenation, B., 200.
- m.p. of hydrogenated oils, B., 200.
- Williams, K. T. See Lorah, J. R.
- Williams, L., composition of matter [white pigment], (P.), B., 308.
- method of preparing white paint or pigment, (P.), B., 649*.
- Williams, M. See Burge, W. E.
- Williams, N., reduction of furan derivatives, A., 183.
- Williams, O. E. See Leighton, A.
- Williams, Rice, determination of exchangeable calcium in carbonate-free soils, B., 723.
- Williams, Roger, and Lazote, Inc., production of hydrogen, (P.), B., 748.
- Williams, Roger. See also Lazote, Inc.
- Williams, R. J., Gabriel, A., and Andrews, R. C., relation between the hydrolysis equilibrium constant of esters and the strengths of the corresponding acids, A., 708.
- Williams, R. J. See also Grette, D. P.
- Williams, R. R., effects on pigeons of an exclusive diet of rice meal, bran, and polish, A., 91.
- Williams, R. R., and Waterman, R. E., tripartite nature of vitamin-B, A., 1058.
- Williams, R. T. D., Ross, S. W., and Electrolytic Zinc Co. of Australasia, Ltd., recovery of zinc from ores, (P.), B., 528*.
- Williams, R. V., spinnerette [for artificial silk], (P.), B., 48.
- Williams, S. V. See Smithells, C. J.
- Williams, T. See Wood, H. S.
- Williams, T. G. See Wetherilt, J. N.
- Williams, W. A., electrodeposition of rubber, (P.), B., 494, 649, 721.
- Williamson, C. S., and Ets, H. N., iron reserve, A., 199.
- Williamson, C. S., and Ewing, P., effect of administration of iron on the iron reserve, A., 1399.
- Williamson, J., ovens of the direct flame continuous tunnel type, (P.), B., 368.
- Williamson, J. S. See Kilmarnock Engineering Co., Ltd.
- Williamson, W. T. H., effects of calcium compounds on the soil and on plant growth, B., 134.
- Williew, L. J. See Stein, L.
- Willigen, P. C. van der, viscosity theory of Sen, Dhar, and collaborators, A., 1187.
- Willigen, P. C. van der. See also Krut, H. R.
- Willimott, S. G., vitamins of orange juice, A., 332.
- vitamins of commercially concentrated orange juice, A., 555.
- pigment of the fat of certain rabbits, A., 1047.
- Willimott, S. G., and Wokes, F., colour tests for vitamin-A; application to naturally occurring products, A., 555.
- Willis, G. H. See Bennett, G. M.
- Willmann, O., manganese content of plants affording official drugs, A., 1163.
- Willshaw, H. See Dunlop Rubber Co., Ltd.
- Willson, F. G., and Wheeler, T. S., [preparation of] benzyl-aniline, A., 629.
- Willstätter, R., Bamann, E., and Waldschmidt-Graser, J., configurational specificity of esterases in various stages of purification, A., 672.
- Willstätter, R., Grassmann, W., and Dyckerhoff, H., plant proteases. X. Mode of action of yeast polypeptidase, A., 672.
- plant proteases. II. Specificity of yeast peptidases, A., 672.
- Willstätter, R., Kuhn, R., and Bamann, E., asymmetric hydrolysis of esters by enzymes, A., 755.
- Willstätter, R., and Schuler, L., formation of indigoid compounds from halogenated naphthols, A., 408.
- Willstätter, R., Seitz, F., and Bumm, E., hydrogenation by sodium amalgam, A., 756.
- Wilmet, M., determination of the constituents of a gaseous mixture containing hydrogen sulphide, carbon dioxide, hydrogen arsenide and phosphide, and acetylene, B., 13.
- Wilson, A. H., ionised hydrogen molecule, A., 574.
- Wilson, C. See Royles, Ltd., and Tammann, G.
- Wilson, C. H., hardness testing device, (P.), B., 554.
- Wilson, D. W., and Ball, E. G., determination of chloride in blood and serum, A., 1269.
- Wilson, E. B., jun. See Furman, N. H.
- Wilson, E. D., temperature of the under-water spark as computed from distribution of intensity in OH absorption bands, A., 1073.
- absorption band spectrum of iodo monochloride, A., 1306.
- Wilson, F. J., Baird, W., Brown, A. C., and Pickering, E. C., acyl derivatives of hydrazine, A., 515.
- Wilson, F. J. See also Hopper, I. V., Munro, A. M., and Stephen, H. W.
- Wilson, G. F. See Klein, P.
- Wilson, H., progress report on the efflorescence and soumning of mortar materials, B., 265.
- Wilson, H. A., emission of light by flames containing sodium and the absorption of light by mercury vapour, A., 567.
- Saha theory and the conductivity of flames containing alkali metal vapours, A., 685.
- chemical equilibrium in the vapour of a mixture of paraffins and unsaturated hydrocarbons, A., 1190.
- Wilson, I. S. See Ingold, C. K.
- Wilson, J. A., egg albumin and egg yolk as emulsifying agents in fat-liquoring [of leather], B., 24.
- Wilson, J. A. See also Cramer, R.
- Wilson, J. B., and Turner, W. R. [with Sale, J. W.], bottled cocoa beverages, B., 67.
- Wilson, J. K. See Cooper, H. P.
- Wilson, J. L. See Stevens, T. S.
- Wilson, J. S., Shearer, G. W., Thomas, J., and Scottish Dyes, Ltd., steaming or ageing machines for dyeing and like operations, (P.), B., 122.
- Wilson, J. S., Thomas, J., and Scottish Dyes, Ltd., production of colour bases for varnishes, etc., (P.), B., 24.
- Wilson, P. W. See Peterson, W. H.
- Wilson, R. E., Atwell, H. V., and Standard Oil Co., coking of hydrocarbon oils, (P.), B., 181.
- Wilson, R. E., and Standard Oil Co., distillation of hydrocarbon oils, (P.), B., 702.
- Wilson, R. V. See Dean, R. S.
- Wilson, S. D., and Terry, (Miss) E. M., effect of neutral salts on the velocity of saponification of ethyl acetate by sodium hydroxide. I., A., 716.
- Wilson, V. See Hendrix, B. M.
- Wilson, W. C., furan, A., 426.
- Wiltshire, J. L. See Barnett, E.
- Winans, J. G., band spectrum of mercury excited by a high-frequency discharge, A., 680.
- fluorescence and absorption of a mixture of mercury and zinc vapours, A., 1166.
- collisions of the second kind between zinc and mercury atoms, A., 1299.
- Winchester Repeating Arms Co. See Cahill, G.
- Winckler, N. See Odén, S.
- Wind, F., and Oettingen, K. von, determination of lactic acid in the vessels of the uterus and umbilicus, A., 1276.
- Windaus, A., relation of the sterols to other substances of animal and plant origin, A., 194.
- formulae of *Digitalis* glucosides. I. Digitoxin, A., 276.
- Windaus, A., and Borgeaud, P., photochemical dehydrogenation of ergosterol, A., 425.
- Windaus, A., and Brunken, J., photochemical oxidation of ergosterol, A., 424.
- Windaus, A., and Hess, A., sterols and antirachitic vitamin, A., 333.
- Windaus, A., and Linsert, O., ultra-violet irradiation of dehydro-ergosterol, A., 1372.
- Windaus, A., and Schoor, A. van, β -phocæcholic acid, A., 639.
- Windaus, A., Westphal, K., and Stein, G., gitoxin, A., 1251.
- Windaus, A. See also Hupe, R.
- Windett, V., gas producer operation, B., 660.
- Windisch, F. See Stockhausen, F.

- Windisch, W., Kolbach, P., and Hennecke, E., nitrogenous constituents of wort assimilable by yeast, B., 870.
- Windisch, W., Kolbach, P., and Rothenbach, E. F., autolysis of bottom-fermentation yeast, B., 685.
- Windisch, W., Kolbach, P., and Schleicher, R., transformation of the α -bitter acid of hops (humulone) on boiling in aqueous solutions of different p_H values, and the nature of the products formed, B., 31.
- Windsor, W. T., and Westendick, F. C., waste-heat drying system involving recuperation, B., 858.
- Wing, H. J., solubility of barium *n*-butyrate, A., 12.
- Wingler, A. See Schuleman, W.
- Winkelmann, A., action of metals [zinc, copper, and iron] on solutions of fungicides, B., 28.
- Winkelmann, H. A., and Croakman, E. G., pigment reinforcement of reclaimed rubber, B., 238.
- Winkelmann, L., vacuum tube [thermionic valve], (P.), B., 163.
- Winkle, R. van, polymerisation of olefines, A., 865.
- Winkler, F. See I. G. Farbenind. A.-G.
- Winkler, H., drying channel or tunnel, (P.), B., 319.
- Winkler, J. H., and Blum, W., properties of graphite used in electrotyping, B., 414.
- Winkler, J. H. See also Blum, W.
- Winkler, L. E., and Koch, F. C., refining of petroleum and oil-field emulsions, (P.), B., 150.
- Winkler, L. W., m.p. and b.p. determinations, A., 535.
- precision of iodine-bromine value determinations, B., 417.
- stable sodium thiosulphate solution, B., 567.
- Winkler, P. E., volumetric determination of antimony and arsenic, A., 265*.
- Winks, F., and Turner, W. E. S., casing of clear by opal glass; importance of annealing, B., 670.
- Winks, F. See also Cousen, A., English, S., and Turner, W. E. S.
- Winnacker, K. See Berl, E.
- Winner, G. B. See Buchanan, G. H.
- Winogradoff. See Vinogradov.
- Winogradsky. See Vinogradski.
- Winsemsius, H. T. See Roman, F. L.
- Winslow, C. E. A., and Dollof, A. F., relative importance of additive and antagonistic effects of cations on bacterial viability, A., 924.
- Winslow, C. F. A. See Shaughnessy, H. J.
- Winslow, S. E., and Consol. Ashcroft Hancock Co., alloy, (P.), B., 820.
- Winsor & Newton, Ltd. See Cross, C. F.
- Winter, A. O. See Virtanen, A. I.
- Winter, H., banded coal, B., 288.
- Winter, K. See Pollak, J.
- Winter, O. B. See Patten, A. J.
- Winter, R. M., latent heat of vaporisation as a function of temperature, A., 577.
- Winter, V. W., influence of freezing of milk on its acid fermentation, A., 1272.
- Winterfeld, K., and Ipsen, W., sparteine. I., A., 906.
- Winterfeld, K., and Roederer, H., determination of iodine in the thyroid gland, A., 787.
- Winterhalter, W., and Grasselli Dyestuff Corporation, dyeing with vat and azo-dyes, (P.), B., 669*.
- Winterstein, A. See Kuhn, R.
- Wintersteiner, O., and Lieb, H. [with Basilious, M., Seelich, F., and Mayer, H.], diphenylamine- and triphenylamine-arsinic acids. II., A., 783.
- Wintersteiner, O. See also Du Vigneaud, V., and Lieb, H.
- Wintgen, R., and Weisbecker, H., combining power of chromic oxide sol with acids and bases, A., 1091.
- Winther, C., Becquerel effect. I., A., 247.
- absorption of ultra-violet glasses, A., 458.
- Winthrop Chemical Co. See Bockmühl, M., Günzler, H., Hahl, H., Kropp, W., Lieske, R., and Oswald, G.
- Wintner, A., scattering by free gratings and the statistical significance of the distribution of grating spectra on the interference of plane waves, A., 692.
- pseudo-spectrum of the energy matrix, A., 807.
- Winzer, C. B., apparatus for carbonisation, (P.), B., 664*.
- Wirth, A. See Kleiber, M.
- Wirth, E. See Kögl, F., and Lehmstedt, K.
- Wirth, J. K., production of acid-proof structures, (P.), B., 606.
- Wirz, A. See Rupe, H.
- Wischin, R., purifying the used lubricating oil of internal-combustion engines, (P.), B., 561.
- Wisconsin Alumni Research Foundation. See Steenbock, H.
- Wise, L. E. See Harlow, W. M.
- Wise, W. G., and Wise Furnace Co., furnace, (P.), B., 215.
- Wise Furnace Co. See Wise, W. G.
- Wishnofsky, M., calcium and carbohydrate metabolism; calcium and dextrose tolerance in diabetes mellitus, A., 1048.
- Wislicenus, H., and Liang, H., application of distillation under partial pressure of substances of high mol. wt. by means of highly superheated steam in order to effect the "demolisation" of highly "comolised" substances, B., 177.
- Wislicenus, H., and Stelzer, E., steam distillation under partial pressure of substances of high mol. wt. to effect the "demolisation" of highly "comolised" substances, B., 177.
- Wislicenus, W., and Schlichenmaier, H., dinitrobindone and its scission products, A., 422.
- Wisner, C. B., [smokeless] coal-ball manufacture, (P.), B., 436.
- Wiśniewski, F. J. von, model of the triatomic molecules of water and carbon dioxide, A., 462.
- Wissemann, F. See Grossfeld, J.
- Wissink, G. M. See Woodrow, J. W.
- Witanowski, W. R., action of formaldehyde on lecithin; formation of methylated compounds in the organism, A., 1398.
- Withrow, J. R. See Reed, R. D.
- Withycombe, R. M., providing metal, wood, and like surfaces with a hard rubber-containing coating, (P.), B., 62.
- attaching rubber to metal, glass, wood, and similar rigid surfaces, (P.), B., 132.
- Witkowitz Bergbau- & Eisenhütten-Gewerkschaft, and Salat, C., pulverised fuel furnaces, (P.), B., 664.
- Witmer, E. E., rotational and vibrational specific heat of a diatomic gas, the molecules of which have a doublet *P* normal state, A., 1315.
- Witmer, E. E., and Rosenfeld, L., diffraction of de Broglie waves by crystal gratings, A., 694.
- Witmer, E. E. See also Rosenfeld, L.
- Witt, A. See Predvoditelev, A.
- Witt, D., and Schuster, F., purification of effluent liquors from brown coal low-temperature distillation plants, B., 355.
- Witte, H. See Skita, A.
- Witte, H., reduction of zinc ores, (P.), B., 128.
- reduction of ores, (P.), B., 269, 373.
- extraction of phosphorus from its compounds by reduction, (P.), B., 297.
- separating the neutral oils in tars, tar oils, and pitches from acid constituents, (P.), B., 595*.
- preparation of a finely-powdered carbide from calcium carbide, (P.), B., 815.
- Wittenberg, H., filter, (P.), B., 879.
- Witter, W. See Tafel, V.
- Wittgenstein, E. von. See Hüttig, G. F.
- Wittig, G., Bangert, F., and Kleiner, H., isomerisation of an isoxazole to a triazole derivative, A., 779.
- Wittig, G., and Leo, M., ring strain and radical formation, A., 642.
- Wittig, G., and Lupin, F. von, ring strain and radical formation. II., A., 1233.
- Wittmann, M. See Müller, Robert.
- Wittneben, A., recrystallisation of α -brass by hot work, B., 786.
- Wizinger, R. See Diltthey, W., and Pfeiffer, P.
- Wloczewski, T. See Terlikowski, F.
- Woack. See Roemer, T.
- Wodarz, K. See Obst, P.
- Wode, G., rate of hydrolysis of some $\alpha\beta$ -oxy-compounds in acid solution, A., 1194.
- Wode, G. See also Smith, Lennart.
- Wöhlk, A., volumetric determination of aluminium, A., 38.
- Wohl, K., gaseous state of normal substances, A., 827.
- [critical isotherms and Wohl's equation of state], A., 1084.
- Wohlens, H. See I. G. Farbenind. A.-G., and Katzenelbogen, S.
- Wohrman, C. R., heterogeneity of iron-manganese alloys, A., 356.
- Wójcik, J. See Przylecki, S. J.
- Wokes, F., colour tests for sterols and vitamin-A. I. Stero tests, A., 800.
- colour tests for sterols and for vitamin-A. II. Spectroscopic study of the colorations attributed to vitamin-A, A., 1058.
- Wokes, F. See also Willimott, S. G.
- Wolcott, E. R., and Texas Co., treatment [cracking] of hydrocarbon oils, (P.), B., 181.
- Wolf, A. See Ostwald, Wolfgang.
- Wolf, Anton. See Freudenberg, K.

- Wolff, A. C., influence of surface-active substances on wheat grains and spores of *Tilletia tritici*, A., 95.
- Wolff, G. See Gränacher, C.
- Wolff, H., synthesis of aldehydes by means of iron pentacarbonyl, A., 1245.
- Wolff, H. J., influence of insulin and dextrose on the oxygen consumption of surviving frog's spinal cord, A., 331.
- Wolff, I. See Schlubach, H. H.
- Wolff, K. L., shape of the carbon dioxide molecule, A., 105.
- Wolff, K. W. See Fuchs, O.
- Wolff, L., production of phosphorus trioxide, (P.), B., 124.
- Wolff, M., crystal structure of solid mercury, A., 1081.
- Wolff, M. See also Menschutkin, V.
- Wolff, P., washing apparatus for coals, (P.), B., 359*, 779*.
- Wolff, R. See Küster, W.
- Wolff, S., ultra-violet spectrum of radium emanation, A., 805.
- Wolff, W., method of testing the strength of blast-furnace coke, B., 177.
- Wolff Co. See Stoner, C. M.
- Wolfe, R. A., and Duffendack, O. S., excitation of the arc spectrum of nitrogen, A., 1294.
- Wolfe, W. D. See Kelley, H. W.
- Wolfers, F., recent attempts at the transmutation of the elements, A., 257.
- Wolffes, O., and Rumpf, K., harmine from a South American liane, A., 653.
- Wolff. See Albrecht.
- Wolff, A., influence of the age of a milk on the result of pasteurisation, B., 33.
- purification and sterilisation of contaminated air by means of ozone, (P.), B., 214.
- Wolff, F. von, centrifugal separation of solid phases, A., 723.
- Wolff, H. See Grimm, H. G.
- Wolff, Hans, water-resistance tests [on paints and varnishes], B., 131.
- pigments. I. [Basic carbonate- and basic sulphate-white lead], B., 274.
- Wolff, Hans, Koref, F., Skaupy, F., and General Electric Co., electric incandescence lamp, (P.), B., 162.
- Wolff, Hans [with Toeldte, W., and Zeidler, G.], albertol resins, B., 376.
- Wolff, Hans, and Singer, R., the red lead question [action of red lead in rust-protecting paints], B., 456.
- production of cellulose varnishes, (P.), B., 719.
- Wolff, Hans, Zeidler, G., and Toeldte, W., cellulose ester solvents. I. and II., B., 519, 668.
- Wolff, Hugo. See I. G. Farbenind. A.-G.
- Wolff, H. T., regularity of radioactive disintegration, A., 810.
- Wolff, O., testing of potato starch, B., 137.
- Wolff, P. See Lorenz, R.
- Wolff & Co., Czapek, E., and Weingand, R., production of foils, films, bands, etc., from viscose and similar cellulose solutions, (P.), B., 810.
- imparting a silk lustre to bodies produced from viscose and other aqueous cellulose solutions, (P.), B., 853.
- Wolff & Co., and Frowein, F., manufacture of ammonium nitrate and *blanc fixe*, (P.), B., 603.
- manufacture of potassium nitrate, (P.), B., 927.
- Wolfenstein, R., production of halogeno-albumin compounds, (P.), B., 141*.
- Wolfgang, K., treatment [dyeing] of union materials containing cellulose acetate silk, B., 744.
- Wolfke, M., and Keesom, W. H., change of the dielectric constant of liquid helium with temperature; provisional measurements, A., 688.
- Wolfke, M. See also Keesom, W. H.
- Wolkovitch, S. I., and Kamzolkin, V. P., wet process for working-up of phosphorites, B., 813.
- Wolfrom, M. L., and Lewis, W. L., reactivity of methylated sugars. II. Action of dilute alkali on tetramethylglucose, A., 509.
- Wolfrom, M. L. See also Levene, P. A.
- Wollin, K. See Deutsche Gasglühlicht-Auer-Ges.m.b.H.
- Wolman, K. H., wood-preserving composition, (P.), B., 159*.
- Wolman, K. H., Peters, F., and Pfug, H., preservation of wood, etc., (P.), B., 16*.
- Wollmann, A., emetine reaction of ipecacuanha preparations, B., 835.
- Wong, S. Y., colorimetric determination of iron and hæmoglobin in blood. II., A., 785.
- colour tests for simple sugars, A., 1219.
- Woo, L. P. L. See Klosky, S.
- Wood, A. E., and Travis, E. C., preparation of aliphatic and aromatic sulphones with sodium hypochlorite, A., 617.
- Wood, C. D., and Los Angeles Chemical Co., manufacture of calcium polysulphide, (P.), B., 893.
- Wood, C. E., rotatory dispersion of certain derivatives of hydroxy-acids, A., 155.
- Wood, C. E., Chrisman, A. E., and Nicholas, S. D., rotatory dispersion of certain isomeric butyl esters of *l*-mandelic acid, A., 1077.
- Wood, C. E., and Nicholas, S. D., rotatory dispersion; inter-sections of dispersion curves and of temperature-rotation curves, A., 816.
- anomalous rotatory dispersion from the point of view of the Drude equation, A., 816.
- rotatory dispersion of optically active co-ordination compounds, A., 817.
- anomalous rotatory dispersion of configuratively related compounds, A., 817.
- examination of a Nigerian lignite and isolation of montan wax, B., 698.
- Wood, C. E. See also Joseph, T. L.
- Wood, E. S. See Davies, W.
- Wood, F. C. See Tootal Broadhurst Lee Co., Ltd.
- Wood, F. T. See Courtaulds, Ltd.
- Wood, F. W. See Bent, Q.
- Wood, G. M., and Poulter, T. C., dissociation of some organic and inorganic substances at high temperatures, A., 129.
- Wood, H. S., Williams, T., and South Durham Steel & Iron Co., Ltd., [grooved] building block or brick for use in furnaces and other structures, (P.), B., 176.
- Wood, J. F., crystal structure of iodoform, A., 351.
- Wood, J. H. J., machinery for grinding, mixing and like operations, (P.), B., 627.
- Wood, L. J., annealing effects of certain copper-nickel-aluminium-manganese alloys, B., 18.
- Wood, R. J., removal of salts from sea water or salt water, (P.), B., 626.
- Wood, R. W., anti-Stokes radiation of fluorescent liquids, A., 1072.
- wave-length shifts in scattered light, A., 1076.
- Raman spectra of scattered radiation, A., 1306.
- Wood, R. W., and Gaviola, E., factors governing the appearance of the forbidden line 2656 in the optical excitation of mercury, A., 1065.
- power relation of the intensities of the lines in the optical excitation of mercury, A., 1065.
- Wood, R. W., and Kinsey, E. L., fluorescence spectrum of sodium vapour in the vicinity of the *D* lines, A., 687.
- Wood, R. W., and Loomis, F. W., optically excited iodine bands with alternate missing lines, A., 345, 930.
- Wood, R. W., and Voss, V., fluorescence of mercury vapour, A., 459.
- Wood, R. W. See also Loomis, F. W.
- Woodall-Duckham (1920), Ltd., and Duckham, A. McD., tunnel kilns, (P.), B., 92, 711.
- Woodall-Duckham (1920), Ltd., Scott, A., and Wellington, S. N., dust extractors, (P.), B., 144.
- device for charging furnaces, (P.), B., 627.
- Woodall-Duckham (1920), Ltd., Smith, E. W., and Finlayson, T. C., manufacture of gas, (P.), B., 6.
- Woodall-Duckham (1920), Ltd., Smith, E. W., and Reber, J. W., refuse-consuming furnaces, (P.), B., 174.
- Woodard, H. Q., properties of colloidal lead, A., 948.
- Woodbridge, J. L., separators for electrodes of electrolytic cells, (P.), B., 824.
- Woodeson, W. A. See Clarke, Chapman & Co., Ltd.
- Woodhead, D. W. See Grice, C. S. W.
- Woodhouse, D. P., fat, lipin, and cholesterol constituents of adrenals and gonads in cases of mental disease, A., 1048.
- Woodhouse, P. See Harman, H. W.
- Woodlands, Ltd. See Chitty, C. W.
- Woodley, J. W. A. See Butcher, R. W.
- Woodman, H. E., and Amos, A., maize silage. II., B., 381.
- Woodman, H. E., and Bee, J. W., nutritive and manurial values of sugar beet tops, B., 28.
- Woodman, H. E., and Calton, W. E., composition and nutritive value of sugar-beet pulp, B., 727.
- Woodman, H. E., Norman, D. B., and Bee, J. W., nutritive value of pasture. III. Influence of intensity of grazing on the composition and nutritive value of pasture herbage. I., B., 381.

- Woodman, *H. E.*, and Stewart, *James*, mechanism of cellulose digestion in the ruminant organism. II. Transformation of into dextrose by the agency of cellulose-splitting cellulose bacteria, *A.*, 1402.
- Woodman, *M. G.*, Fisher, *D. G.*, and Shantz, *V. F.*, manufacture of iron [castings], (*P.*), *B.*, 676.
- Woodman, *R. M.*, causes of solubility: surface forces in a system constituting a pair of partly miscible liquids, *A.*, 12.
- Woodroffe, *D.*, Procter-Searle method of determining free mineral acid in leather, *B.*, 166.
- action of acids on vegetable-tanned leathers, *B.*, 869.
- Woodroffe, *D.*, and Crane, *F. N.*, emulsification of sulphonated oils, *B.*, 902.
- Woodrow, *J. W.*, ultra-violet absorption spectrum of cod-liver oil, *A.*, 685.
- Woodrow, *J. W.*, and Wissink, *G. M.*, fluorescence and chemiluminescence of cod-liver oil, *A.*, 1304.
- Woodruff, *J. C.* See Commercial Solvents Corp.
- Woodruff, *J. G.* See Morgan, *W. A.*
- Woods, *E. L.* See Basterfield, *S.*
- Woods, *H. J.* See Lennard-Jones, *J. E.*
- Woodward, (*Miss*) *G. E.* See Cnlhane, *P. J.*, and Whitmore, *F. C.*
- Woodward, *W. E.*, rapid normalising of overstrained steel, *B.*, 408.
- Woodworth, *P. B.* See Sweet, *A. T.*
- Woog, *P.*, spreading of lubricants on solid surfaces, *B.*, 290.
- Woolcock, *J. W.*, and Hartley, (*Sir*) *H.*, activity coefficients of hydrogen chloride in ethyl alcohol, *A.*, 709.
- Woolcock, *J. W.*, and Murray-Rust, *D. M.*, valve oscillator for use in conductivity measurements, *A.*, 712.
- Woolf, *B.* See Cook, *R. P.*
- Woollard, *H.* See Marrian, *G. F.*
- Woolridge, *W. R.* See Qnastel, *J. H.*
- Woolston, *L. F.* See Otis, *A. N.*
- Wooster, *C. B.*, reactions of strongly electropositive elements with organic substances in liquid ammonia solution. VI. Reduction of benzophenone; hydrolysis of metal ketyls, *A.*, 760.
- Wooster, *W. A.* See Ellis, *C. D.*
- Wooyenaka, *K.*, Okochi, *T.*, and Takamine Ferment Co., producing a diastatic product, (*P.*), *B.*, 766.
- Work, *H. K.*, electroplating on aluminium and its alloys, *B.*, 450.
- Working, *E. B.*, action of phosphatides in bread dough, *B.*, 621.
- some oxidising effects of flour bleaching, *B.*, 909.
- Worley, *F. P.*, and Andrews, *J. C.*, mutarotation. IV. Consecutive reactions in the mutarotation of dextrose and galactose, *A.*, 374.
- Worley, *F. P.* See also Andrews, *J. C.*
- Wormall, *A.* See Gordon, *J.*, and Johnson, *L. R.*
- Worms, *P. J.* See Escaich, *A.*
- Wormwell, *F.* See Fairbrother, *F.*
- Wornum, *W. E.* See Morrell, *R. S.*
- Worrall, *D. E.*, addition of ethyl sodiomalonate to aliphatic thiocarbimides, *A.*, 744.
- Worrall, Ltd., *J. & J. M.* See Livsey, *H.*
- Worsley, *R. R. L.*, determination of nicotine in tobacco and tobacco extracts, *B.*, 690.
- Worthing, *A. G.*, nature of the nitrogen afterglow, *A.*, 1296.
- Worthington, *E. B.* See Grant, *R. F.*
- Woudhuysen, *J.*, and Ory, *G.*, viscosimeter, (*P.*), *B.*, 879.
- Wrangel, *M. von.* See Stollenwerk, *W.*
- Wrangell, *H. von.* and Bronsart, *H. von.*, flower coloration and nitrogen fertilisation, *A.*, 1290.
- Wratschko, *F.*, volumes and the homologue characteristic. I. and II., *A.*, 107.
- volume chemistry. II. Halogen derivatives of hydrocarbons, *A.*, 402.
- volume chemistry. III. Oxygen compounds; hydroxyl group, *A.*, 460.
- "volume adjustment" in solutions, *A.*, 698.
- constitution rules, *A.*, 817.
- volume chemistry. III. Oxygen compounds; carbonyl group, *A.*, 828, 1179.
- volume studies. III. Calculation of limiting values, *A.*, 1179.
- Wrede, *F.*, and Hettche, *O.*, thiocellobiose and thiocellobiosides, *A.*, 621.
- [octa-acetyl]tetrathiodiglucoase, *A.*, 1119.
- Wrede, *F.*, and Strack, *E.*, pyocyanine, the blue colouring matter of *Bacillus pyocyaneus*. III. Constitution of hemipyocyanine, *A.*, 1285.
- Wrede, *F.*, Strack, *E.*, and Hettche, *O.*, spermine. VII., *A.*, 511.
- Wrede, *H.*, preparation of bleaching liquor from liquid chlorine, *B.*, 88.
- use of starch in paper, *B.*, 636.
- Wreesmann, *F.*, centrifugal liquid atomiser, (*P.*), *B.*, 113*.
- Wrenshall, *R.* See Dean, *A. L.*
- Wright, *A.*, and Young, *F. W.*, separation of solids from liquids in which said solids are suspended, (*P.*), *B.*, 74.
- Wright, *A. F.*, apparatus for drying, (*P.*), *B.*, 143.
- Wright, *A. M.*, and Thompson, *I.*, titre of New Zealand mutton tallow, *B.*, 273.
- Wright, *C. H.*, specific conductivities of soil extracts, *B.*, 381.
- Wright, *K. E.* See Overman, *O. R.*
- Wright, *N. C.*, mechanism of secretion of calcium and phosphorus in milk, *A.*, 1047.
- Wright, *N. C.*, and Rule, *W.*, rotating dialyser, *A.*, 95.
- Wright, *P. A.*, determination of moisture in dry skim milk by the Bidwell-Sterling toluene distillation method, *B.*, 910.
- Wright, *R.* See Bell, *T.*
- Wright, *R. H.*, and Marshall, *M. J.*, effect of adsorbed gases on the contact resistance of carbon, *B.*, 822.
- Wright, *S.*, apparatus for effecting intimate contact of gases and liquids, (*P.*), *B.*, 144.
- Wright, *S.* See also Morrison, *R. R.*
- Wright, *W. C.*, method of slicking hides, (*P.*), *B.*, 795.
- Wright, *W. H.*, factors causing variable results with flagella stains, *A.*, 330.
- Wright, (*Miss*) *W. M.*, decomposition of hydrogen peroxide on glass powder in the presence of salts, *A.*, 1101.
- thermal decomposition of hydrogen peroxide, *A.*, 1196.
- Wright, (*Miss*) *W. M.*, and Rideal, *E. K.*, decomposition of hydrogen peroxide at surfaces, *A.*, 1196.
- Wu, *D. V.* See Wu, *H.*
- Wu, *H.*, and Ling, *S. M.*, separation of ovalbumin from conalbumin, *A.*, 190.
- denaturation of proteins. V. Factors controlling coagulation of proteins by shaking, *A.*, 190.
- Wu, *H.*, and Wu, *D. V.*, growth of rats on vegetarian diets, *A.*, 792.
- Wu, *H.* See also Lin, *K. H.*
- Wühken, *H.* See Diltthey, *W.*
- Wülfing, *J. A. von.*, manufacture of *n*-propyl ester of 2-phenylquinoline-4-carboxylic acid, (*P.*), *B.*, 36.
- Wülfing, *J. A. von.*, and Busch, *A.*, preparation of neutral to weakly acid water-soluble silicic acid compounds, (*P.*), *B.*, 261.
- Wülfing, *R. von.*, manufacture of 2-phenylquinoline-4-carboxylic acid [atophan], (*P.*), *B.*, 244.
- Wünsche, *E.* See John, *H.*
- Würth, *K.*, "accelerated testing" of paints, *B.*, 308.
- metallic lead in red lead, *B.*, 308.
- bleaching of [linseed] oil, *B.*, 416.
- Würth, *P.*, recovery of readily volatile hydrocarbons from gases obtained in cracking and hydrogenating processes, (*P.*), *B.*, 7.
- cracking and hydrogenation of hydrocarbons, oils, or tars, (*P.*), *B.*, 561.
- Württembergisches Statistisches Landesamt, and Gaisses, *F.*, production of acids and alkali solutions from salts by electrolysis, (*P.*), *B.*, 123.
- Wüst, *F.*, furnace for treating iron with a low proportion of carbon, (*P.*), *B.*, 372.
- theory of blast-furnace smelting [of iron ores], *B.*, 406, 817.
- purification of pig iron, (*P.*), *B.*, 862.
- Wuest, *H. M.*, and Hoffmann-La Roche Chemical Works, manufacture of water-soluble, neutral [lactose] derivatives of diaminodihydroxyarsenobenzene, (*P.*), *B.*, 140.
- Wuillot, *A.* See Bigwood, *E. J.*
- Wulf, *O. R.*, susceptibility of ozone, *A.*, 226.
- photochemical ozonisation and its relation to the polymerisation of oxygen, *A.*, 720, 1338.
- progression relation in the molecular spectrum of oxygen occurring in the liquid and in the gas at high pressure, *A.*, 1168.
- heat of dissociation of oxygen as estimated from photochemical ozonisation, *A.*, 1191.
- Wulf, *T.*, Wilson's ray-track apparatus, *A.*, 1208.
- Wulff, *P.* See I. G. Farbenind. A.-G.
- Wunenberger, *R.* See Ferrero, *P.*
- Wurm, *A.*, apparatus for evaporating (concentrating) liquids without employing a vacuum, (*P.*), *B.*, 41.
- Wurm, *K.* See Schüler, *H.*

- Wurmser, *R.*, apparent potential of dextrose solutions, A., 23.
 Wurmser, *R.*, and Gelso, *J.*, limiting potential of sugar solutions, A., 846.
 Wurmser, *R.* See also Schou, *S. A.*
 Wursterberger, *F. von*, [electrical] protection of metallic parts against corrosion, (P.), B., 612.
 Wurzburg, *B.* See I. G. Farbenind. A.-G.
 Wussow, *R.*, dry-cooling of coke, (P.), B., 292*.
 Wuth, *O.*, preparation of gold sol, A., 1321.
 Wyatt, *F. A.*, and Doughty, *J. L.*, sulphur content of Alberta soils, B., 684.
 Wyatt, *J. R.*, and Ajax Metal Co., [electric] induction furnace having unidirectional circulation, (P.), B., 491*.
 [electric induction] furnace lining, (P.), B., 933.
 Wyatt, *W. F.*, solutions. I. F.p. diagrams and latent heats of evaporation of binary mixtures of volatile liquids, A., 1085.
 Wyatt, *W. F.* See also Tryhorn, *F. G.*
 Wyckoff, *R. W. G.*, crystal structure of potassium hydroxystannate, $K_2Sn(OH)_6$, A., 463.
 crystal structure of monomethylammonium chlorostannate and chloroplatinate, A., 1176.
 Wyckoff, *R. W. G.*, and Hendricks, *S. B.*, crystal structure of zircon and criteria for special positions in tetragonal space-groups, A., 821.
 Wylam, *B.*, Harris, *J. E. G.*, Thomas, *J.*, and Scottish Dyes, Ltd., dyes and dyeing [dry dye and leuco-vat dye preparations], (P.), B., 442.
 dyes and dyeing [soluble vat dye derivatives], (P.), B., 517.
 Wylam, *B.* See also Beckett, *E. G.*, and Harris, *J. E. G.*
 Wyler, *M.* See Imperial Chemical Industries, Ltd.
 Wyneken, *I.*, energy distribution in the continuous spectrum [of radiation emitted] from aluminium electrodes sparking under water, A., 1066.
 optical measurement of small degrees of dissociation of the vapours of metallic salts, A., 1093.
 Wynne-Jones, *W. F. K.*, correction of conductivity data for the conductivity of the solvent, A., 22.
 equilibrium in salt solutions; "activity theory of reaction velocity," A., 715.

X.

- Xenakis, *G. I.* See Hölzl, *F.*

Y.

- Yabuki, *K.*, conductivity of gel containing salt, A., 586.
 diffusion of silver ions [and dyes] in gels, A., 586.
 oxygen-carrying ability of the blood, A., 784.
 combination of haemoglobin with oxygen. I. Aggregation of haemoglobin molecules in the blood studied from the oxygen dissociation curve, A., 784.
 Yabuki, *K.* See also Kato, *S.*
 Yabuta, *T.*, and Kambe, *K.*, β -2-furylethylamine, A., 766.
 Yaginuma, *T.* See Osaka, *Y.*
 Yahagi, *T.*, origin of camphor in camphor trees, A., 1290.
 Yaitzshnikov, hydrolysis of proteins by acids and alkalis, A., 189.
 alkaline hydrolysis of edestin, A., 1333.
 Yajnik, *N. A.* See Bhalla, *D.*
 Yakimach, *A.* See Auger, *V.*
 Yakimov, *P.*, and Anikin, *B.*, [tannins in] pine bark, B., 795.
 Yakimov, *P. A.* See Sadikov, *V. S.*
 Yakovkin, *A. A.*, and Fleisher, *N. A.*, preparation of cyanides from calcium cyanamide, B., 745.
 Yakubchik, *A. O.* See Lebedev, *S. V.*
 Yamada, *M.*, influence of the mother-liquor on crystal form, A., 824.
 mechanism of fruit-ester formation by *Willia anomala*, A., 1061.
 Yamada, *R.* See Honda, *K.*
 Yamada, *S.*, and Koshitaka, *T.*, determination of impurities in crude camphor. I. Determination of water and solid matter, B., 210.
 Yamaga, *N.*, simplified formulæ for specific heats of gases and solids, especially of explosion products, A., 696.

- Yamaguchi, *K.*, effect of grain boundary on the hardness of aluminium, A., 8.
 slip-bands produced when crystals of aluminium are stretched, A., 1079.
 Yamaguti, *B.*, nickel as catalyst in thermal decomposition of methane, A., 139.
 Yamamoto, *R.*, utilisation of "kaoliang" stalk. I. Digestion of the stalk by the soda process and effect of preliminary treatment on the digestion, B., 443.
 Yamamoto, *S.*, production of lipase, (P.), B., 872*.
 Yamamoto, *T.*, arrangements of the micro-crystals in zinc and sodium obtained by sublimation, A., 463.
 Yamamoto, *T.* See also Nishimura, *T.*
 Yamamura, *Y.*, and Takata, *J.*, constituents of *Phellodendron amurense*, Rupr. I., A., 892.
 Yamasaki, *R.* See Tsurumi, *S.*
 Yamashita, *M.*, application of the Hoesch reaction to nitro-benzonitriles, A., 1136.
 Yamashita, *M.* See also Ueno, *S.*
 Yamazaki, *J.*, colorimetric [micro-]determination of sulphuric acid, A., 1107.
 Yamazaki, *T.*, ageing of vulcanised rubber. IV. Relation between wave-length of light and deterioration of vulcanised rubber, B., 615.
 ageing of vulcanised rubber. V. Effect of sunlight and heat on the mechanical properties of vulcanised rubber. VI. Effect of sunlight filtered through coloured glass on mechanical properties of vulcanised rubber, B., 615.
 Yant, *W. P.*, and Frey, *F. E.*, fractionation analyses of several fuel gases with special reference to illuminants, B., 42.
 Yant, *W. P.* See also Sayers, *R. R.*
 Yaol, *H.*, glutathione and reducing power of muscle in vitamin-B deficiency, A., 1059.
 Yaol, *H.*, and Nakahara, *W.*, glutathione content of chicken sarcoma, A., 86.
 Yaoi, *H.*, and Tamiya, *H.*, respiratory pigment, cytochrome, in bacteria, A., 1285.
 Yard, *W. S.*, and Percy, *E. N.*, gas manufacture, (P.), B., 115.
 Yardley, (Miss) *K.*, X-ray study of some simple ethane derivatives. I. and II., A., 575.
 Yardley, *W. H.*, removing and collecting impurities from air, (P.), B., 550.
 Yarsley, *V. E.* See Goddard, *A. E.*
 Yasuda, *M.*, determination of gold and silver in sea-water, A., 265.
 precipitation of gold and silver from their dilute solutions, A., 851.
 Yasuhara, *K.* See Ueno, *S.*
 Yates, *S. S.*, and Chicle Development Co., jelutong product and its manufacture, (P.), B., 904.
 Yazawa, *T.*, and Sasaki, *T.*, cetacea. XXXII. Urinary organic acids, A., 84.
 Yazawa, *T.* See also Furuhashi, *Y.*, and Ichimi, *T.*
 Yeager, *H. J.*, electrolytic apparatus, (P.), B., 272.
 Yeager, *J. F.*, haemolysis by saponin and sodium taurocholate with special reference to the series of Ryvosh, A., 1270.
 Yeager, *J. F.* See also Ponder, *E.*
 Yeatman, *R. M.* See Webster, *D. L.*
 Yendö, *Y.* See Isohe, *H.*
 Yensen, *T. D.*, evidence obtained by X-ray analysis of films of iron in magnetic fields as to the ultimate nature of magnetism, A., 940.
 Yllner, *C. A.*, glyoxaline-4 : 5-dicarboxylic acids, A., 1142.
 Yngve, *V.*, manufacture of bleach liquor as by-product in salt purification, (P.), B., 815.
 Yngve, *V.* See also Hendry, *W. F.*
 Yntema, *L. F.* See Kremers, *H. C.*
 Yoder, *L.* See Dox, *A. W.*
 Yoe, *J. H.*, and Hill, *W. L.*, reaction of sodium alizarinmonosulphonate with aluminium under different experimental conditions with reference to its use in colorimetry, A., 500.
 Yoe, *J. H.*, McGahey, *R. W.*, and Smith, *William T.*, pumice impregnated with anhydrous magnesium perchlorate as a drying agent, A., 862.
 Yoganandam, *E.* See Choodary, *K. S.*
 Yohe, *G. R.*, and Adams, *R.*, cyclopentylalkylacetic acids and β -cyclopentylethylalkylacetic acids, and their action towards *B. lepræ*. XI., A., 754.
 Yohe, *G. R.* See also Lewis, *H. F.*
 Yokojima, *N.*, mechanism of the rearrangement of diazoamino-benzene into aminoazobenzene. II. and III., A., 749.

- Yokojima, N. See also Fukami, M.
 Yokoyama, T. See Edwards, C. A.
 Yokoyama, Y. See Suzuki, B.
 Yonemura, S., gallodeoxycholic acid, A., 756.
 Yorkshire Dyeware & Chemical Co., Ltd. See Craven, J. A.
 Yoshida, T. See Ueda, Y.
 Yoshikawa, H., lead alloy, (P.), B., 759*.
 Yoshioka, E., buoyant oil-proof india-rubber, (P.), B., 277.
 Yoshioka, T., and Kumagai, K., hydration of cements. II. Microscopical study of the hydration of the rapid-hardening cements, B., 334.
 Yost, D. M., and White, R. J., acid-forming properties of osmium tetroxide, A., 261.
 Yost, D. M. See also Crowell, W. R., and Schott, H. F.
 Youker, M. A. See Layng, T. E.
 Young, A. P. See British Thomson-Houston Co., Ltd.
 Young, B. See Fellner & Ziegler A.-G.
 Young, E. G., autolytic power of *B. coli communis*, A., 90.
 Young, E. G., and Macdonald, I. G., peptic digestion of coagulated egg-white, A., 328.
 Young, E. G. See also Macdonald, I. G.
 Young, F. W. See Wright, A.
 Young, H. C., and Williams, Robert, pentathionic acid, the fungicidal factor of sulphur, A., 928.
 Young, H. J., corrosion by oil, B., 148.
 Young, H. J. See also Swan, Hunter, & Wigham Richardson, Ltd.
 Young, (Miss) L. E. See Randall, M.
 Young, M. E. See Young, W.
 Young, N., degasification of coal, (P.), B., 359*.
 Young, P. See Willard, H. H.
 Young, S., boiling points of the normal paraffins at different pressures, A., 941.
 Young, W., analysis of residual acid from nitroglycerin manufacture, B., 466.
 Young, W., and Young, M. E., [dry-ore] concentrator, (P.), B., 527.
 Youngburg, G. E., organic phosphorus in cerebrospinal fluid, A., 1047.
 Youtz, M. A., and General Motors Corporation, manufacture of lead alkyls, (P.), B., 223.
 Youtz, M. A., and Perkins, P. P., action of refining agents on pure [organic] sulphur compounds in naphtha solution, B., 78.
 Yovanovitch, D. K., preparation of radiothorium, A., 3.
 calorimetric method for determination of the coefficient of absorption of radium β -rays, A., 22.
 Yovitchitch, M. Z., electrosynthesis, A., 865.
 Yudowitch, H. (Newton, H. A.), edible fat, (P.), B., 308*.
 Yumato, K. See Terada, T.
 Yumoto, K., velocity of flame in complex gaseous mixtures of low inflammability in closed vessels, A., 1193.
 Yumoto, R. See Fuseya, G.
 Yurkov, A. O., crude oils from the district of the Kruimskaya settlement (Kuban, Black Sea district), B., 661.
- Z
- Zabel, W. P. See British Thomson-Houston Co., Ltd.
 Zabicki, S., removal of iron from aluminium salts by recrystallisation, B., 669.
 Zabiński, J., growth of black-beetles (*Blatella germanica*, L.) and of cockroaches (*Periplaneta orientalis*, L.) on artificial and on incomplete diets, A., 1397.
 Zablocki, W. See Grisehkevitch-Trochimovskij, E.
 Zabojev, S. See Salkind, J. S.
 Zabrodin, A. See Nametkin, S. S.
 Zacharias, L., and Klüglic, E. (Oppermann & Deichmann), apparatus for making road compositions, (P.), B., 750.
 Zaehariassen, W., crystal structure of modification C of sesquioxides of the rare earths, indium, and thallium, A., 224.
 crystal structure of tetramethylammonium iodide, A., 940.
 Zähler, E. See Schiess, H. J.
 Zähler & Schiess & Co. See Schiess, H. J.
 Zafouk, V., significance and determination of temperature coefficients in the study of inversion, B., 939.
 Zaghloul, M., soil stratometer; examination of deep-lying soil, B., 382.
 Zaharia, N. See Vavon, G.
 Zaher, S. H. See Freudenberg, K.
 Zahn, C. T., and Miles, J. B., jun., dielectric constant and electric moment of carbon monoxide, carbonyl sulphide, carbon disulphide, and hydrogen sulphide, A., 1172.
 Zahn, H., dielectric constants of aqueous solutions of electrolytes, A., 106.
 Zahn, H. See also Hellmann, H.
 Zahn, K., Eckert, W., and Grasselli Dyestuff Corporation, production of benzanthrone derivatives, (P.), B., 599*.
 Zahn, K., and Ochwat, P., constitution and mode of reaction of polynuclear polyhydroxyquinones; naphthazarin and quinizarin, A., 891.
 Zahn, K., Ochwat, P., and Grasselli Dyestuff Corporation, preparation of derivatives of dibenzanthronyl, (P.), B., 808.
 Zahn, O., tube apparatus for crystallisation and evaporation, B., 215.
 Zahn & Co., G.m.b.H., calcining furnaces, (P.), B., 551.
 Zahnley, J. W. See Latshaw, W. L.
 Zahradník, J., precipitation of magnesium ions by tropæolin-OO and the use of this reaction for its colorimetric determination, A., 145.
 Zaidan Hojin Rikagaku Kenkyujo, preparation of pure alumina, (P.), B., 927.
 Zaidan Hojin Rikagaku Kenkyujo. See also Imori, S., and Suzuki, T.
 Zaimis, P. See Zintl, E.
 Zaki, A., benzole esters and electronic affinities of radicals. I., A., 636.
 Zakrzewski, K., refraction and absorption of electrical waves by electrolytes. I., A., 347.
 Zaleski, L., superphosphate as stimulant of [plant] growth, B., 135.
 Zaleski, V., and Kucharkova, A., enzymic oxidation of oxalic acid by higher plants, A., 1289.
 Zaleski, V., and Mordkin, V., phosphorus compounds in plants. I. Exosmosis of phosphorus compounds from plants, A., 1061.
 Zaljesov, G. See Marek, I.
 Zalocostas, D. G., and Salt Production Synd., Ltd., extraction of salts from aqueous solution [sea water], (P.), B., 914.
 Zamaron, J., variations in the composition of sugar beets during the harvesting period, B., 539.
 Zambonini, F., and Caglioti, V., rosetite and other beryls, A., 731.
 Zambonini, F., and Ferrari, A., crystal structure of lead phosphate and pyromorphite, A., 694.
 Zambonini, F., and Restaino, S., formation of double sulphate of cerium and rubidium, A., 957.
 Zanda, G. B., influence of caffeine on the germination of seeds, A., 803.
 Zanden, J. M. van der. See Backer, H. J.
 Zander, H., electrical heating apparatus for electroplating baths, (P.), B., 824.
 Zanetti, J. E., esters of tetrahydro- α -furfuryl alcohol, A., 1019.
 Zanetti, J. E., and Beckmann, C. O., esters of furoylacetic acid, A., 766.
 α -furfurylamines, A., 1019.
 Zaprometov, B. G., determination of sulphur trioxide in natural waters and soil extracts, A., 978.
 Zarfel, C., and Stroever, W. D., production of cellulose articles from waste tanbark or waste bark of *Coniferae* and foliage trees, (P.), B., 638.
 Zavadovski, B., and Asimov, G., detection of thyroxine in hyperthyroidised mammals, A., 332.
 Zavadovski, B., Raspopova, N., Rolitch, T., and Umanova-Zavadovski, E., rôle of the iodine component of the thyroxine molecule, A., 1288.
 Zawadzki, J., Kowalczewski, I., and Zeromski, S., decomposition of alkaline-earth sulphates. IV., A., 1095.
 Zawadzki, J., and Narkiewicz, H., oxidation of ammonia in presence of contact catalysts. IV., A., 28.
 Zaykovskij, J., Fedorova, O., and Ivankin, V., action of rennin on the proteins of milk. IV. Enzymes in the stomach contents of calves of various ages, A., 1282.
 Zborovszky, A., energy content and energy storing of plants in relation to the carbon and nitrogen contents, A., 559.
 Zdanski, A. E., electrolyser resembling a filter press [for the electrolysis of water], (P.), B., 305.
 Ze, N. T., deformations and changes in optical properties of quartz under the influence of the electric field, A., 352.

- Zechentmayer, C. See I. G. Farbenind. A.-G.
- Zechmeister, L., ajkaite, a Hungarian fossil resin, A., 1350.
- Zechmeister, L., and Cholnoky, L. von, constitution of carotin, A., 1015.
- Zechmeister, L., Cholnoky, L. von, and Vrabély, (Frl.) V., catalytic hydrogenation of carotin, A., 524.
- colouring matter of paprika. III. Catalytic hydrogenation, A., 1252.
- Zechmeister, L., and Tuzson, P., xanthophyll. I. Catalytic hydrogenation, A., 1252.
- Zechmeister, L., and Vrabély, (Frl.) V., telegdite, a fossilised resin, A., 391.
- Zee, T. W. See Rising, M. M.
- Zeeman, P., metals as semi-transparent layers in the interferometer, A., 5.
- Zeerleder, von, and Bosshard, M., [aluminium wires for] electrical transmission lines, B., 56.
- Zeh, L. See I. G. Farbenind. A.-G.
- Zehenter, J., and Fauser, E., dihydroxydiphenylsulphones (hydroxysulphobenzides), A., 167.
- Zeidler, G. See Wolff, Hans.
- Zeigert, H., exact determination of the ionisation produced by single α -particles, A., 455.
- Zeigert, H. See also Biltz, M.
- Zeile, K. See Fischer, Hans.
- Zeise, H., unimolecular character of the adsorption of gases by glass and wood-charcoal, A., 1182.
- Zeiss, C., and Lorber, L., colorimeter [for liquids], (P.), B., 249.
- Zeisset, W. See Abderhalden, E.
- Zeitschel, O. See Deppe Söhne, A.
- Zelada, F., *Werneria proposita*, Philippi, A., 560.
- essential oils of *Chenopodium rigidum* (arcayuyo) and of *Satureia eugenoides* (muna-muna), A., 561.
- Zelewski, R. von, production of sulphur dioxide-containing gas currents for the manufacture of sulphuric acid, (P.), B., 523.
- Zeligman, I. F. See Nakhmanovich, M. I.
- Zelinski, N. D., and Gaverdovskaja, M. V., production of condensed ring systems by catalytic dehydrogenation. II. Activated charcoal as reducing agent, A., 747.
- Zelinski, N. D., and Kasanski, B. A., propylcyclobutane and cyclobutyl ethyl ketone, A., 279*.
- Zelinski, N. D., and Lavrovski, K. P., oleic, palmitic, and stearic acids as parents of petroleum, A., 731.
- cholesterol as parent of petroleum. II., A., 865.
- Zeller, P. J. A. See Rudolfs, W.
- Zellner, H., adulteration of brandy and its detection, B., 383.
- Zellner, H. G., treatment of fresh fruits and vegetables [by spraying], (P.), B., 284.
- preservation of fruits, vegetables, etc., (P.), B., 690.
- Zellner, J., comparative plant chemistry. XIX. Chemistry of barks. VI., A., 93.
- Zellner, J. See also Huppert, E., and Swiatkowski, H.
- Zellstoff-fabrik Waldhof, and Lührs, O., manufacture of yeast, (P.), B., 797.
- Zemann, T., refrigerating apparatus, (P.), B., 802.
- Zemansky, M. W., quenching of mercury resonance radiation by foreign gases, A., 687.
- Zemplén, G., Csürös, Z., and Bruckner, Z., action of trimethylamine on acetobromocellobiose and acetobromomaltose, A., 741.
- Zentner, M. See Schmid, L.
- Zerndt, J., microscopic zircons as guide minerals, A., 268.
- Zernik, F., insecticide, (P.), B., 110*.
- Zernike, F. See Ornstein, L. S.
- Zeromski, S. See Zawadzki, J.
- Zervas, L., and Bergmann, M., transformations of substances resembling peptides. XXV. So-called "arginylarginine" of E. Fischer, an α -diguano- α -valeric anhydride, A., 874.
- Zervas, L. See also Bergmann, M.
- Zerweck, W. See Herz, R.
- Zettlitz, V., and Pfeifer, A., tanning and dyeing of furs and leather, (P.), B., 25, 278*.
- Zetzsche, F., Cholatinikov, C., and Scherz, K., cork. II., A., 272.
- Zetzsche, F., and Huggler, K., membranes of spores and pollen. I. *Lycopodium clavatum*, L., A., 524.
- Zeyen, K. L. See Bardenheuer, P.
- Zherebov, L. P., pentosans in the sulphite[*-cellulose*] cooking process, B., 563.
- Ziegler, C., tanning of marine animal skins, B., 763.
- Ziegler, E. See Fierz-David, H. E.
- Ziegler, K., [preparation of] anhydrous hydrogen cyanide, A., 401.
- Ziegler, K., and Bähr, K., supposed mechanism of polymerisations by alkali metals, A., 404.
- Ziegler, K., and Boye, E., measurement of the basicity of carbinols, A., 58.
- "tervalent" carbon. VI. $pp'p'$ -Trinitrotriphenylmethyl, A., 59.
- Ziegler, N. A. See Brace, P. H.
- Ziegner, H., porous soft and hard vulcanised rubber goods, (P.), B., 419.
- Zieley Processes Corporation, distillation and gasification of solid carbonaceous material, (P.), B., 395.
- Zielińska, J. See Lampe, V.
- Zielinski, J. Z., absorption and scattering of mercury vapour for the line 2536 Å., A., 566.
- Ziemiecka, J. See Vinogradski, S.
- Zieren, V., production of calcined alkali dichromates in a powdered form or compressed into tablets, etc., (P.), B., 747.
- Zierer, A., preparation of a mild, aromatic yoghurt-curdled milk or sweet yoghurt junket, (P.), B., 909.
- Zieser, W. See I. G. Farbenind. A.-G.
- Ziganow, S. W., is sea-water a physiologically equilibrated solution for the isolated organs of warm-blooded animals? A., 919.
- Zigarettenfabr. Lesmona Ges.m.b.H., and Rosenhoch, F., refining of tobacco, (P.), B., 943.
- Zigerli, P. See Trachsel, F.
- Zijl, J. P. van, variation of phosphorus content in South African vegetation, B., 279.
- Zijlstra, H. I. See Nieuwenburg, C. J. van.
- Zila, V. L. See Ducháček, F.
- Zilva, S. S., antiscorbutic fraction of lemon juice. VII., A., 801.
- Zilva, S. S. See also Golding, J., and Shipp, H. L.
- Zilzer, V., independence of the displacement of absorption bands and of the changes of absorption of light in different solutions of pigments, A., 315.
- Zimmer, H., calcium metabolism with diet rich in vitamin but deficient in mineral constituents, A., 1397.
- Zimmerley, H. H., soil acidity in relation to spinach production, B., 102.
- Zimmerley, S. R. See Gross, J.
- Zimmerli, A., concentration of formaldehyde solutions, (P.), B., 474.
- Zimmerli, G., wetting and degreasing agents [for textiles], (P.), B., 522*.
- Zimmerli Chemisch-technische Fabrik, G., production of stable moistening and degreasing agents, (P.), B., 418.
- Zimmerman, E. C., and Brown, R. W., hardness tester for rubber, B., 238.
- Zimmerman, E. C., and Cooper, L. V., softeners and anti-softeners [for rubber], B., 720.
- Zimmermann, A., rapid determination of iron in brass, B., 56.
- Zimmermann, B. See Šandera, K.
- Zimmermann, E., metabolic regulation of bacteria, A., 797.
- Zimmermann, E. K. See Long, J. S.
- Zimmermann, J., auto-oxidation of citronellal, A., 1217.
- Zimmermann, K., distillation of [mineral] oils and similar products, (P.), B., 116.
- Zimmermann, L. M., relation of the parathyroid hormone to the calcium content of the blood and to blood coagulation, A., 332.
- Zimmermann, W., discharge-stability tests on insulating oils, B., 803.
- Zimmermann, Wilhelm. See Stock, A.
- Zimpelmann, E. See Halban, H. von.
- Zindaric, F., production of white parchment, (P.), B., 764.
- Zindel, E., determination of copper in iron and steel, B., 643.
- Zinke, A., Funke, K., and Bensa, F., manufacture of highly chlorinated perylenes, (P.), B., 845.
- Zinke, A., Funke, K., and Ipavice, H., perylene and its derivatives. XVI., A., 282.
- Zinoviev, A., purification of vegetable oils, B., 825.
- Zins, W. See Strebing, R.
- Zintl, E., and Betz, K., potentiometric micro-titrations, A., 977.
- Zintl, E., and Kohn, O., radical-like alkali salts of a new acid containing nitrogen and oxygen, A., 258, 1200.
- Zintl, E., Rienäcker, G., and Schloffer, F., potentiometric determination of silver, copper, and gold, A., 145.
- Zintl, E., and Schloffer, F., simultaneous potentiometric determination of iron, copper, and arsenic, A., 1109.

- Zintl, E., and Zaimis, P., [chlorides of ruthenium], A., 1345.
 electrometric determination of chromic acid in the presence of vanadic acid by the use of induction and catalysis, A., 1348.
 potentiometric analysis of the hardening elements in special steels. II. Determination of chromium and vanadium in iron alloys and superior steels, B., 525.
- Zinzalian, G. See Bethke, R. M.
- Zipt, K., universal extraction apparatus, A., 503.
- Ziser, G. J. See Chappell, M. L.
- Zitscher, A. See I. G. Farbenind. A.-G.
- Zobel, P. See Braun, J. von.
- Zoccheddu, E. See Galimberti, L.
- Zoehner, H., effect of magnetic, electric, and mechanical forces on "mesophases," A., 226.
 structure formation in colloidal solutions, A., 705.
- Zoehner, H., and Albu, H. W., sol-gel systems with anisotropic particles. I. Dibenzoylcytine. II. Barium malonate, A., 1186.
- Zoehner, H., and Coper, K., production of optical activity by circularly polarised light, A., 573.
 production of anisotropy on surfaces, A., 583.
 anisotropy induced in photochloride by the Weigert effect, A., 593.
- Zöller, E. See Hentschel, H.
- Zoellner, E. A. See Gilman, H., and Puntambeker, S. V.
- Zörkendörfer, R. See Kauffmann-Cosla, O.
- Zoja, R., effect of manganese content and speed of cooling on the separation of ferrite, A., 595.
- Zoja, R. See also Schaßmeister, P.
- Zola, T. See Florence, G.
- Zolcinski, J., important nitrogen losses during the fermentation and humification of highly nitrogenous plants. I. Lucerne, B., 278.
- Zolcinski, J., and Musierowicz, A., important nitrogen losses during the fermentation and humification of highly nitrogenous plants. II. Red clover, B., 278.
- Zombory, L. von, iodimetric determination of persulphate, A., 497.
- Zondek, A., and Bansi, H. W., hormones and adsorption, A., 925.
- Zondek, B., preparation of female sexual hormone from urine, particularly in pregnancy, A., 1404.
- Zondek, S. G., and Matakas, F., is there a relation between tonic muscular contraction and lactic acid formation? A., 86.
- Zschimmer, E., calculation of glass constants on the basis of recent investigations, B., 404.
- Zsigmondy, A., manufacturing blocks and articles of casein products, (P.), B., 937.
- Zuber, K., spark potential curve of a pure gas at low pressures, A., 1068.
- Zucker, F., manufacture of manure from straw and calcium cyanamide, B., 497.
 nitrification in Hungarian Szik (alkali) soils, B., 795.
- Zucker, L. See Jellinek, K.
- Zucker, T. F., and University Patents, Inc., obtaining certain remedial principles of oils, (P.), B., 718.
- Zürich, L. See Rutovski, B. N.
- Zumbrunn, R. See Fichter, F.
- Zumstein, R. V., absorption spectrum of antimony vapour, A., 1294.
- Zunz, E., and La Barre, J., causes of the increase of insulin content of venous pancreatic blood after intravenous administration of adrenalin, A., 799.
 physiological changes of the inner secretion of the pancreas. IV. Hyperinsulinæmia after hyperglycæmia caused by injection of dextrose. V. Hyperinsulinæmia after injection of adrenalin, A., 1287.
- Zuwerkalow, D. See Palladin, A.
- Zvegintsov, M. See Hammick, D. L.
- Zvjaginstsev, O. B., determination of iron in iridium sponge, A., 727.
 analysis of iridium, A., 728.
- Zvjaginstsev, O. E. See also Grigoriev, A. T., and Shemtschushni, S. F.
- Zwaardemaker, H., radiation substance in the heart, A., 925.
 irradiated vitamin-B and automatin action, A., 1161.
- Zwarenstein, H., creatinine and uric acid metabolism. II. Ingestion of proteins and amino-acids and the hourly elimination of creatinine and uric acid, A., 547.
- Zweigle, G., testing the quality of cotton fibres, etc., (P.), B., 782.
- Zwefina, J. See Lang, R.
- Zwicky, F., thermodynamic equilibrium in the universe, A., 1096.
- Zwiebler, G., distribution of energy and luminosity in the cross-section of the positive column in neon and helium, A., 808.
- Zwieg, W., natural bitumens, with special reference to bituminous shale, B., 289.
- Zwieg, W. See also Bunte, K.
- Zwikker, C., diffusion of carbon through tungsten, A., 583.
- Zwikker, J. J. L., casein glycerophosphate, B., 243.
- Zwillinger, B., and Tar & Petroleum Process Co., distillation of coal, (P.), B., 218.